THE BUILDER

A RECORD OF ARCHITECTURE & CONSTRUCTION

JUN 11 1918.

VOLUME CXIV. No. 3927.
Seventy-sixth Year.
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THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

VOL. CXIV.—No. 3927. MAY 10, 1918.

ARCHITECTURE AT THE ROYAL ACADEMY.

THE year's exhibition work at the Academy will convince all who need proof that more space should be allotted to architectural work. Without providing the immense space which is given at the Salon to both architecture and sculpture, there is surely a compromise between the present cramped accommodation and an amount of space which it would only be possible to give in an entirely new building designed on ample lines. It is possible that reconstruction at Burlington House might take the form of an upper floor or galleries over part of the existing site, or even of a central projection into the courtyard, but it is very desirable that in the interest of two of the three branches of art more space should be found in what is, after all, the most representative exhibition of the year. After the war, more attention will probably be devoted towards the monumental aspects of sculpture in its relation with building, and at present there is not even room for the exhibition of fair-sized models of such monuments in the galleries of Burlington House. All that the public can see are inadequate representations of monuments on a minute scale, or of parts of them which, by separation from the whole, afford no adequate idea of scale. If it is desirable, as most of us would admit, to persuade the public that the art of sculpture is not confined to the production of busts, statues and accessory ornament, it is most desirable that adequate exhibition space should be provided; while architectural galleries should provide room for adequately showing architects' work without crowding and for the display of a fair number of working drawings, details and models. Architectural work this year is seen to advantage, as the amount of work is smaller than usual—many well-known architects sending nothing, while others are represented by a smaller number of works than are usually submitted by them. Naturally there are comparatively few new schemes shown; for, while many things are talked of "after the war," projects have in comparatively few cases materialised so far as to render the definite presentment of new buildings possible, and the exhibition is very largely devoted to the works which were carried into execution a few years before the outbreak of war, a few of smaller future projects and a certain number of small works of a memorial character; and it, therefore, represents rather the state of architecture before the war than the effect of the stimulus which many think may be given to it by changed conditions in the new era which will follow the conclusion of hostilities.

Taking the works in the order in which they are give in the catalogue, we have the Pennefather Memorial Buildings at Barnet (No. 1,289), a quiet and suitably treated design by Mr. William Waymouth; Frontispiece and Title Page, for a MS. Dante, by Mr. Sidney H. Meteyard, which is an admirable piece of delicate and refined decorative design; and a Proposed Enlargement of Bloxham School* by Sir Aston Webb (No. 1,291). Sir Aston also sends Leys School, Cambridge, Proposed War Memorial*(No. 1,297), both being excellent examples of scholastic design shown in delicate drawings by Mr. Raffles Davison; a Proposed War Memorial at Christ's Hospital, Horsham (No. 1,306), which takes the form of a simple well-designed cross on a base formed by shaped slopes; two views of the new front of Buckingham Palace (No. 1,365 and No. 1,377), and the Offices for the Grand Trunk Railway (No. 1,385). No. 1,314 shows Mr, J. Hatchard Smith's Institute at Headley. The cottage design by Messrs. Knowles, Oliver & Leeson (No. 1,293), though simple and good, is a little spoilt by the varied pitch of the gables.

Mr. Paul Waterhouse sends an admirable water-colour of a good War Memorial at Winchester (No. 1,294), and also the interior of a very interesting church vaulted in barrel form (No. 1,339), which should be very effective in execution. Mr. Maurice Adams sends a fine drawing of a good marble memorial tablet for All Hallows Church, Tottenham, but the New Almshouses for the Parochial Charities Trustees at Chiswick (No. 1,364) do not do him justice, unless there were exceptional difficulties to be met of the nature of which we are ignorant. St. Edmund's School, Canterbury, by Captain Charles Blomfield, shows a characteristic piece of Tudor design. Mr. H. P. Burke Downing sends, in Nos. 1,298 and 1,311, photographs of admirable memorials very delicately and beautifully detailed, which we have already illustrated, and No. 1,422, the entrance gateway to Bromley School, Kent, which is a fine example of his skill and knowledge; the design of both the stone gate piers and iron gates are admirable. In the photograph of Messrs. Castle and Warren's house at Weyton (No. 1,301) the good effect produced by a small amount of window space is emphasised. In 1,308 they also give a view of some war factory offices which are pleasantly designed.

The memorial to Rupert Davison designed and shown in an admirable pastel drawing by Mr. Raffles Davison (No. 1,302) is well conceived and dignified. Messrs. H. V. Ashley and Winton Newman are represented by photographs of the Central Entrance of the London School of Music (No. 1,303), which shows a well-designed arched entrance. Mr. Voysey's decorative panel or embroidery design (No. 1,304) is very characteristic of his methods. The Great White Throne, which is a design for mosaic work, by Mr. Charles Hardgrave, is admirable, as is also Mr. W. Edward Riley's accepted design for the London County Council's War Diploma, which shows a delicately executed view of London framed in an architectural setting (No. 1,307). No. 1,312 is the Viceregal Monument erected at Calcutta from designs of Sir Hamo Thornycroft, and shows a central figure surrounded by four smaller groups set at the angles of the surrounding square. The relation of bronze and stone in this does not strike us as being happy. The design for a stained glass window for the Council Chamber of the County Hall, London, by Mr. John D. Forsyth, is one of the best, both in colour and composition, which we have ever seen. We do not quite understand or like the iron trellis work which is placed behind and round the memorial to F. A. Lindsay-Smith, J.P., designed by Mr. Banister Fletcher (No. 1,315). We have already illustrated the Commercial Travellers' School, Pinner, by Mr. Thomas Batterbury, of which No. 1,316 is a photograph; it shows refined design, but would be improved by being less attenuated in its proportions.

The design of the Ralli Memorial, Hove Parish Hall, by Messrs. Read & MacDonald (No. 1,317) is unfortunate in the over-accentuation of the eaves of the roof and the awkward conjunction of porch with the mullioned bay over. Mr. Percy Scott Worthington sends some admirable examples of his skill in the design of buildings of a Gothic character represented by No. 1,318, Manchester College, Oxford; No. 1,368, Hulme Hall, Manchester; while No. 1,447 shows a Convalescent Home at Sandlebridge, Cheshire. Mr. Temple Moore sends a number of views of All Saints' Church, Basingstoke (Nos. 1,320, 1,344, 1,356), one of the finest churches erected recently. No. 1,323 is a clever water-colour showing a design for one of London's open spaces by Mr. Robert Atkinson. No. 1,324* is Sir Edwin Lutyens' only contribution, a War Memorial Church at Basildon, Berkshire, which is, we believe, to form the centre feature of a new village. It is a fine design reminiscent of past work, but actually like none of it, and is shown in an effective drawing by Mr. Walcot. As this would not reproduce well because of its colour values, we illustrate it from a pencil drawing by Mr. Raffles Davison. This and the Chapel of the Thistle (1,337)

* Illustrated in this issue.

and the stalls at Dunblane Cathedral (No. 1,352), are the three ecclesiastical works of most outstanding merit in the exhibition. We think Mr. Henry Payne's designs for memorial windows for the Peace Palace at the Hague are commonplace, but Miss Joan Fulleylove sends an admirable example of her work in "The Crown of Life," a design for a memorial window (No. 1,326). The Swedish Church, Harcourt-street, by Messrs. Niven & Wigglesworth (Nos. 1,327 and 1,328) is an excellent example of simple direct design. Mr. John S. Alder sends Nos. 1,329 and 1,330, which illustrate St. Barnabas' Church, North Finchley, a fine and vigorous example of excellent design showing a mastery of detail.

The Wesleyan Church, Medak, India, by Messrs. Bradshaw, Gass & Hope, is shown by a colour drawing of the west front. We suppose clients in India often impose limitation of style, but if Gothic is adopted we prefer such wide variants of it as inspired Professor Beresford Pite in his Uganda design and Mr. Weir Schultz Weir in his Khartoum Cathedral. The authors also send their design for Withington Congregational Church (No. 1,345). Mr. G. Fellowes Prynne sends a series of photographs of elaborate church design, including rood and screen, St. Cleer, Cornwall (No. 1,334), rood screen, Rattlesden Church, Suffolk (No. 1,334), and the interior of St. Mark's, Purley. All are very characteristic of a designer whose knowledge of detail is great but who has a tendency toward over-elaboration. Messrs. Pick, Everard & Keay's church at Leicester (No. 1,333) is utilitarian in conception, but imposing in size and mass. The proposed church of St. Jude, Thornton Heath, by Mr. William A. Pite, hardly does justice to a very able architect, a result possibly due to a very weakly executed drawing. Mr. George Hornblower sends a pleasantly simple and effective design for a narrow house front in Harley-street, broken up by two bays, in one of which the doorway occurs (No. 1,357). The design is well considered in its relation to the adjoining houses. His work also includes some good photographs of additions made to Horton Priory (No. 1,413), a fine old house the character of which has been carefully preserved. Mr. C. E. Bateman's Bank at Nuneaton (No. 1,358) is dignified but is rather overweighted by the bank entrance, which seems out of scale with the remainder of the composition. Mr. Arthur Blomfield is represented by the Council Chamber, Christ's Hospital (No. 1,359), a bank in Pall Mall East (No. 1,372), which is somewhat reminiscent of the type of commercial design of thirty years ago, and the Committee Room of the Bankers' Clearing House (No. 1,397). No 1,361 shows Mr. Verity's large Regent-street front, which is one of the outstanding Neo-Grec buildings in London.

Mr. Richard J. Allison sends a clever design for the ferro-concrete front of H.M. Stationery Office in Stamford-street. The façade of Bank-street, St. Mary Axe, by Mr. Frederick Hall-Jones, is much overweighted by the scale of the columns, an effect emphasised by the treatment of the intervening windows.

Mr. W. D. Caröe sends a photograph of part of the Library of the University of South Wales (No. 1366*), a building designed in what may be described as a pause between the earlier and later English Renaissance, and a scheme for a Memorial Bridge at Charing Cross (No. 1,387*), which we hope will serve as a stimulus to the public demand for a removal of the South Eastern terminus to afford room for a much-needed improvement. Messrs. William and Henry Hunt are represented by the exterior of some maisonettes in Harley-street (No. 1,367), and an elevation of Drakefield-court (No. 1,378), which, like all their work, shows refinement.

Sir Thomas G. Jackson's only exhibits are a view of the Physiological Laboratory, Cambridge, a building we have never liked as much as Sir Thomas' freer renderings of style, and a proposed enlargement of Grove Place, Hunts. (No. 1,403). Professor Beresford Pite's only contribution is a drawing of the porch of his well-known Insurance Office in Euston-square (No. 1,370*). Messrs. Marshall Mackenzie & Son send a half-inch model of the upper part of Australia House, the sculpture of which as shown is a little unhappily composed, and a very fine view (No. 1,372) of the same building as seen from the Strand, looking towards St. Clement Danes and the Law Courts. This, which is a composition photograph, worked over in crayon by Mr. Raffles Davison, shows the scope of this form of illustration, as it is probably the finest thing in the room. As we have said before, the new offices are among the best modern designs which have been produced for many years. The houses at Clevedon, Somersetshire, by Mr. J. H. Kennard (No. 1,379), are pleasingly designed; Green Harbour House, Holborn Viaduct (No. 1,380), by Mr. Arthur F. Usher, shows a good building, but the attic is rather too high for the remainder of the composition, a fault sometimes impossible to avoid, owing to the exigencies of the plan.

The series of works sent in by Mr. Reginald Blomfield includes a photograph of the United Universities Club (Nos. 1,375 and 1,381); and Waldershare Park, as rebuilt for the Earl of Guilford (Nos. 1,398 and 1,406), which show a fine and dignified Georgian composition. The proposed Roll of Honour Hospital for Children, by Messrs. Hart and Waterhouse (No. 1,382), is a pleasant composition in brick, with canted ward blocks; the extremely wide spacing of the columned centre feature is a little awkward even in a freely designed composition, but it is undoubtedly picturesque. Messrs. Willinck & Thicknesse send a fine photograph of the Cunard Offices (No. 1,383), which we have illustrated previously. Mr. Arthur Bolton is represented by a drawing showing alterations to Shipping Offices in Cockspur-street (No. 1,386), and some admirable domestic work; and Nos. 1,424 and 1,440, the one an interior of a drawing-room and the other a very interesting external view of a house, showing much skill and freshness of design. Messrs. Thomas Mawson & Sons send their plan for Salonica (No. 1,388), and the gardens at Woolley Hall (No. 1,434); as with many garden designs we feel there is a tendency at the present time to indulge too freely in pergolas and vistas. Mr. Delissa Joseph's project for Tower House, Kingsway, is an interesting essay in vertical composition. No. 1,393 shows proposed offices at Hendon*, by Messrs. E. R. Glanfield, J. G. Price, and Horace Field—a design which is pleasant and appropriate. Messrs. North and Robin's design for rebuilding Royal Messenger Inn (No. 1,399) is illustrated by one of the best water-colour drawings in the room. Sir Ernest George's only architectural scheme is St. Chad's Wood, Kidderminster (No. 1,402*), which forms a picturesque group. No. 1,407, Drakestone, Stinchcombe, Gloucestershire, is a delightful view of a charming stone house, with winding steps leading to a pond. It is the work of Mr. O. P. Milne, and, with Mr. Baillie Scott's No. 1,412, Home Close, Gibford, and a house by Mr. Turner Powell, represents the best of the freer school of English domestic building.

Mr. Newton's two works (No. 1,417 and 1,418) are shown in immediate proximity to two photographs of an admirable house which we could mistake for Mr. Newton's work, entitled "The New House, Airlie Gardens," by Mr. H. Martineau Fletcher. The Surrey Golf Club House, by Mr. William C. Waymouth (Nos. 1,420) is very pleasing and picturesque in treatment, and is shown in a fine pastel drawing by Mr. Raffles Davison. The remaining subjects include: Heaton Lodge Headley (No. 1,430), Wynn's Parc, Denbigh (No. 1,436), The Court House, Broadway, by Mr. E. Guy Dawber, which are excellent in design; a very fine series of views of Sledmere* and a drawing of additions to Jervaulx Abbey*, by Mr. Walter Brierley (Nos. 1,411, 1,435, and 1,441); Gerston, Storrington (No. 1,432) by Mr. E. Turner Powell, one of the best houses in the exhibition; Grey Friars, Churt, by the same architect; a house at Woldingham, by Major Maurice Webb (No. 1,442); a house by Mr. Walter Cave (No. 1,445), and other works we might mention, did space permit. Mr. T. E. Collcutt sends a model of an admirably-conceived octagonal War Memorial for Mill Hill School, designed in conjunction with Mr. A. Bertram Pegram, and Mr. Arnold Mitchell gave designs made with his "toy bricks."

As will be seen from our review, the year's exhibition contains little of very great size or outstanding importance, but much which is both good and interesting, and should serve as a good basis for the work of the future, which we hope will be plentiful and widely distributed after the war, when we may hope that "business" will be better than "usual."

NOTES.

Paper Saving.

THE Controller of Paper has asked us to urge on our readers the desirability of releasing old plans on linen and paper, especially the former, which are urgently needed in connection with the manufacture of munitions, and which incidentally fetch a good price. Most architects have a large number of such plans and drawings, the custody of which becomes a nuisance, while they are reluctant to dispose of records which may be needed in the future. But in most cases an architect's past "stock" will bear judicious elimination, and there will be an inclination to help the authorities as far as possible by releasing material which may be used for purposes of war.

The Metric System.

A VERY good paper was read at the Surveyors' Institution on May 6, by Lieutenant A. J. Martin, F.S.I., on the metric system, which we feel cannot be adequately covered by anything but a full report, for which we have not space. It is always a surprise that there should be any controversy at all about the question, since the disadvantages of our present chaotic mass of antiquated weights and measures is apparent in our every-day life; but while we talk of the importance of the promotion of trade after the war, and the elimination of waste, it seems to be difficult to induce the legislature to see that it is important to take a step which would cost comparatively little to effect an immediate saving of time spent in unnecessary calculations, and would place us, in our commercial dealings, on a footing of common understanding with most of the great nations of the world. We have heard the somewhat extraordinary argument that the adoption of the metric system would result in the exposure of our trade secrets; how or why is not made clear. We have ample evidence that our traders frequently persist in quoting English weights and measures to their foreign customers to their own disadvantage, but by adopting the common language of other countries we should eliminate the possibility of such trouble.

The Compounding of Rates.

The Council of the Surveyors' Institution have been considering the question of the Compounding of Rates, and in their report they suggest a scheme modelled on the Scottish precedent in conjunction with the principle embodied in a section of the Increase of Rent and Mortgage Interest Act of 1915. The recommendations are briefly as follows:—The statutory provisions as to rating of owners and the payment of rates, whether premises are occupied or not, to be repealed. The owner of a house to be reponsible for all rates, but such owner is to be entitled to claim repayment in respect to a house or part of a house for periods during which the house was not let. Owners to be entitled to a commission of 5 per cent. to cover cost of collection. The dwellings to which this applies to be those coming within the provisions of the Housing and Town Planning Act of 1909, and in all cases where a house or part of a house is let for a period of not less than a quarter of a year irrespective of its saleable value. The rent cards or rent books to show clearly, in a form to be provided by the rating authorities, how much of the weekly charge is allocated to rates. As will be seen, the charge is chiefly designed to make it clear to the tenant that he has an interest in the question of local charges, and to relieve the landlord from payments for which he has received no equivalent in the form of rent. If such a change brings the necessity for economy in local expenditure home to every class in the community it would be a great gain. One great good which would be automatically brought about by making all householders contribute directly to the rates is that a movement for the relief of buildings from excessive rating would be more widely supported, and the reforms suggested by Mr. E. M. Gibbs might find strong support among the proletariat. At present they are often a crushing burden through their ill-adjusted incidence.

Land Values after the War.

It is interesting to speculate on the effect which the increased cost of building after the war is likely to have on land values generally. It may probably be assumed that in the best and most centrally situated parts of the City, the demand will be great enough to force up rents, especially as the value of land is already so great there that it is usually assumed that the cost of the buildings erected is relatively immaterial. With regard to land in other and less favoured positions, where there is less demand and wider choice, the increased cost of building and the necessity for making a profit on it, will tend to lower the ground rents obtainable, at any rate for a considerable period of time. With regard to housing, on the other hand, it may be said that, as housing is a necessity, rents must rise or housing will not be provided, unless, indeed, it is provided at the taxpayers' expense and to the loss of the whole community. The reasonable alternative is a sufficient rise in wages to make it possible for the occupier who benefits to pay the increased rentals—and this seems to us to be the right solution. It will be an additional and compelling reason why the employer should get an increased *quantum meruit* for the wages paid, so that the solution of the one problem rests on that of another.

Proposed Housing Scheme at Notting Dale · London · W. View in Tenchers Walk as restored · W.H. Raffles · Architect · 11 Bloomsbury Square, W.C. 1918

R. A. EXHIBITION.

Housing Scheme, Notting Dale, W. MR. W. H. RAFFLES, Architect.

ARCHITECTURAL SOCIETIES.

The Liverpool Architectural Society.

FROM the Annual Report of the Council for the official year 1917–1918 we take the following :—

The present membership of the Society consists of 56 Fellows and 39 Associates, a total of 95. There are also 3 Hon. Fellows, 7 Hon. Associates, and 5 students. The work of the Council has been largely directed towards watching the interests of the profession in the period of "reconstruction" which may be expected to follow on the termination of the war. Captain Gilbert Fraser, R.E., past President, has been awarded the Military Cross, and Lieut.-Colonel S. P. Morter, R.F.A., has had the Distinguished Service Order conferred upon him. The Society has now completed seventy years of useful service, and is the oldest provincial society in England, its first meeting having been held at the Lyceum, Bold-street, on March 1, 1848. Though the war has placed the Society under the shadow of a heavy cloud, taken many of its members to the front, and caused others to be engaged in various spheres of national service, the Council look hopefully forward to a period of still greater usefulness. The Council would express their view that future conditions are likely to demand the closest possible union among architects should they wish to see the profession of architecture maintain a leading position in the building world. The experience of the past few years has shown that for those entering the profession a more scientific course of education and training has become necessary. Under the will of the late Captain Matthew Honan the Society has become possessed of the sum of £1,000 for the purpose of founding a Travelling Scholarship.

The Council of the Institute having referred to a special committee the subject of the employment of expert advice and assistance, submitted the report of the committee to the Allied Societies, requesting their views on the several points raised. For their reply the Council expressed the opinion that an architect should be reasonably qualified to design and direct the construction of a building, though it may be in the best interests of the work that expert assistance in special modes of construction should be employed, in which case an additional charge should be made according to the nature of the services rendered. The Institute also submitted to the Council the new schedule of architects' charges, and desired any further criticism which the Council might desire to make. The Council has received from the Institute the draft of a new form of building contract, which has been prepared to meet the effect of various legal decisions and of other objections to the form at present in general use.

A conference of Allied Societies held at Manchester on April 18 last year was a largely attended and interesting gathering. The President, together with Mr. T. T. Rees and Mr. R. Holt, attended on behalf of the Liverpool Society. As a result of the meeting a number of resolutions expressing opinions on various matters of professional interest was drawn up and forwarded to the Council of the Institute, together with a suggestion for the appointment of a committee representative of the Institute and the Allied Societies for their consideration. A special committee was appointed by the Institute, and under the chairmanship of the President of the R.I.B.A. has held three meetings at London, Manchester and Birmingham respectively, all of which have been numerously attended by representatives from all parts of the country. The committee has now concluded its sittings, and a report will shortly be laid before the Council of the Institute. In view of the general agreement on many subjects, there is every reason to hope that important developments may follow as a result of the initiative taken by the provincial societies and by their concerted action. Provincial societies may be expected to take a more important part in forming professional policy than in the past.

R.A. EXHIBITION.

A House at Northwood. MR. HORACE FIELD, Architect.

R.A. EXHIBITION.

A House at Northwood. MR. HORACE FIELD, Architect.

Nottingham and Derby Architectural Society.

The fifty-fifth annual meeting was held on April 30, the President, Mr. Harry Gill, M.S.A., presiding. Lieutenant-Colonel Herbert Walker, a former President, and Mr. Robert Booker, who joined the Society in 1862, were elected honorary members. The Council reported that although the income from subscriptions had considerably fallen, owing to nearly forty members being on active service, the loss on the year was only £3 5s. 3d. They regretted to record that three of their associate members had been killed in action, viz. : Lieutenants E. R. Brown, Wallace Smith and K. V. Weston.

The Society was included in the North Midland area for the National Cottage Competition and the President appointed to act as one of the assessors. Two of their members gained successes in this competition—Mr. F. W. Gregory and Mr. C. A. Broadhead. The Council were proud to place on record the following military distinctions recently awarded their members:—Major C. H. Calvert, the Military Cross; Lieutenant-Colonel T. C. Howitt, the Distinguished Service Order; Lieutenant J. Woollatt, the Military Cross.

Owing to the present uncertainty, the election of officers was adjourned *sine die*.

GENERAL NEWS.

Appointment.

At a meeting of Wigan Corporation, Mr. R. B. Donald, A.M.Inst.C.E., chief assistant to the Borough Engineer of Huddersfield, was appointed Borough Engineer and Surveyor to the County Borough of Wigan. Mr. Donald served his pupilage under Mr. John Cowan, M.Inst.C.E., of Glasgow, and was afterwards employed by the Glasgow City Engineer on the main drainage staff of that city.

Second-Lieutenant F. Dean Chippindale.

Second-Lieutenant F. D. Chippindale, aged twenty-nine years (West Riding Regiment), officially reported killed in action on April 10, was the eldest son of Mr. and Mrs. Harold Chippindale, of "Ivy Bank," Guiseley. He was educated at the Boys' Modern School and the Art School in Leeds; and afterwards entered the office of his father, an architect and surveyor. Later, he went to Messrs. Nicholson & Corlette, Lincoln's-inn; after which he returned to his father's business. In February, 1916, he joined the Army as a private; and, after a short period of service in the ranks, he was granted a commission in the Duke of Wellington's West Riding Regiment.

The Education Bill.

The following resolution has been passed by the Executive Council of the Federation of British Industries:—"Resolved that, having regard to the apparent misconception existing in regard to the attitude of the Federation of British Industries on the Education Bill, the Council place on record their full sympathy with the objects at which the Bill aims, namely, the improvement and extension of education in this country, and will give all possible support in attaining these objects. They believe, however, that these objects cannot be attained in the fullest degree unless due provision is made for a full time secondary education for the largest possible number of children. But before enacting any system of universal part-time education, time should be afforded to enable the employers and employed to give consideration to any peculiar needs or difficulties of particular industries and districts."

The Institution of Civil Engineers.

At the annual general meeting of the Institution of Civil Engineers, held on April 23, the result of the ballot for the election of officers for the year 1918–19 was declared. The President is Sir John A. F. Aspinall, M.Eng. (Liverpool). The Council of the Institution have made the following awards for papers read and discussed during the Session 1917–1918:—

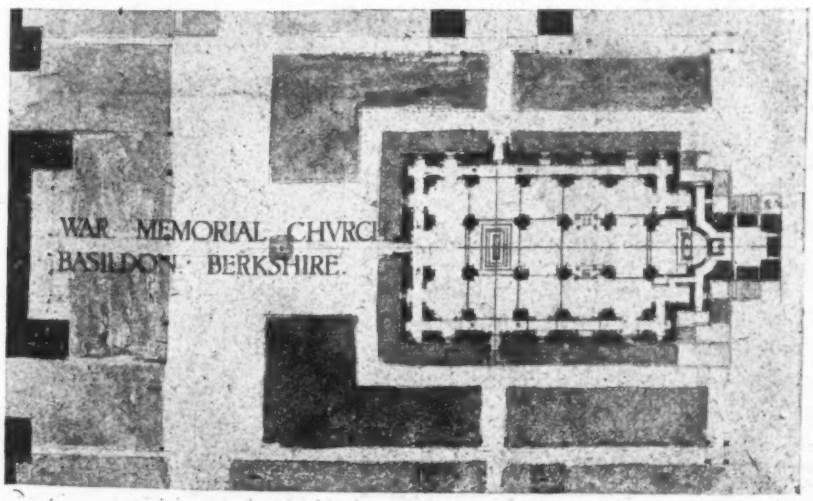
Telford Gold Medals to Sir Robert R. Gales, F.C.H. (India), and Mr. Edward Sandeman (London); George Stephenson Gold Medals to the Hon. Sir Francis J. F. Spring, K.C.I.E., and Mr. H. H. G. Mitchell (Madras); and Telford Premiums to Mr. W. L. Lowe Brown, M.Sc. (London), Mr. G. Blake Walker (Barnsley), and Mr. Alwyne Meade (Blackheath). Indian Premiums also have been awarded to Sir Robert Gales and Sir Francis Spring.

Town-Planning London.

Speaking at the Royal Society of Arts recently Lord Leverhulme said that in the metropolitan area they had 450,000 acres of land. The ideal to be aimed at was the building of not more than ten houses to an acre. They could put aside 100,000 acres—far more than they had now—for docks, parks, &c. On the land remaining, at an average of five persons to a house, they had room for 17½ millions of people, providing them with a beautiful city with wide roads. If the ideal plan of Sir Christopher Wren had been adopted they would have had not only a beautiful modern London, but they would save millions of pounds sterling per year in time and transport. Every block of houses in the congested streets cost millions sterling. The cartage rates of London were three times the average throughout the country. That represented time lost through having those blocks.

Shortage of Building Materials.

A special meeting of the Council of the Ulster Society of Architects was held recently (Mr. N. Fitzsimons, F.R.I.B.A., President, in the chair), when communications from the Ministry of Reconstruction were placed before the meeting for consideration. The purport of these communications is that the Ministry has appointed a Building Materials Supply Committee, which, after consultation with the Royal Institute of British Architects, has prepared and issued forms of inquiry to enable it to ascertain the probable demand for building materials for all purposes. As the Ministry points out, the demand for materials will certainly exceed the supply available; and as the materials available will have to be rationed those contemplating building should at once make their returns through the proper channels, so that their work may not be held up when it may be most required in the national interest.—Mr. R. M. Young, J.P., F.R.I.B.A., pointed out that, as these forms had been sent by the Ministry direct to the architects in the various districts, only such work as was actually planned could be dealt with, and that there must be numbers of people contemplating extensive building works who had no schemes worked out and not being in a position now to make their applications, would be debarred from participating in the distribution of available materials.—On the motion of Mr. W. J. Gilliland, F.R.I.B.A., seconded by Mr. J. J. M Donnell, M.R.I.A.I., it was resolved that the Secretary be instructed to urge the members as far as in their power to obtain the probable requirements of their clients and make the necessary returns without delay.



SIR EDWIN LUTYENS, A.R.A., Architect. (*See next page.*)

CORRESPONDENCE.

Re Form A, Ministry of Construction.

SIR,—On April 13th, we, with others in the profession, received the above letter and form, of which we enclose a copy for your perusal. At first we were not inclined to treat the matter seriously, but after making further inquiries we found that in the interests of architects and clients alike, it could not be ignored.

Upon approaching clients who have notified us at varying times during the war to the effect that "they intended to build after the war," we find that most of those whose ideas as to proceeding have not materially altered with the progress of the war discredit the necessity for making the application, and generally are inclined to look upon the matter as a device for committing them to something which it is unnecessary, if not impossible, to settle at the present time. It appears strange that after more than three-and-a-half years of war, the most critical period should have been chosen to issue the notices, and still more so that to the 6th of May (which allowed only three weeks), should have been given to complete the mass of work necessary for approaching clients and providing, even approximately, the quantities of the various materials which it is anticipated will be required in the buildings contemplated. Further, upon application, we find that the special form required for buildings "which will be erected under the supervision of, and for, a County or Borough Council, or an Urban or Rural District Council (Form B)," will not be available for some three weeks to come.

We venture to say that the returns made under these conditions will be valueless for their purpose, and therefore suggest that the Ministry be asked by the various architectural societies, and all who have received the letter, to make an announcement in the public Press to the effect that all persons, who, at present, intend to proceed with building schemes after the war, should make the necessary application for the materials, &c., and allowing a reasonable time for so doing. This would result in many, who have profited by the war and who have not even thought of consulting an architect, or even formulated any plans beyond an intention to spend some of their war profits in building, giving preliminary instructions forthwith, and thus serve the double purpose of furnishing the Ministry with a more or less sound basis to work upon and also indirectly benefiting the architectural profession, which, without exception, has suffered more acutely than any other section of the community through the action of the Ministry of Munitions in virtually closing down ninety per cent. of the practices of the country some three years before it was considered necessary to even curtail any of the "luxury" trades.

The architect is obviously the last man likely to be in a position to furnish the statistics necessary until the unknown client has been publicly notified of the necessity for making an application in his own interests and thus disclosing his after-war intentions. In the meantime, the official date for returning the information has passed, and we have only been able to provide particulars of about twenty per cent. of the buildings we know to be required and we believe this is the general position with regard to these returns.

We shall be grateful if you would give this letter the prominence of your journal.

G. BAINES & SON.

P.S.—We have forwarded a copy of this letter to the Secretaries of the Royal Institute of British Architects, the Society of Architects, and the Master Builders' Association, in the hope that through joint action this matter may be reopened and a reliable return thus obtained.

The Leicester Galleries.

"Void of War" is the title of an exhibition of paintings and drawings by Lieutenant Paul Nash, one of the official artists on the Western Front, which will be opened on Saturday, May 11, at the Leicester Galleries, Leicester-square.

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ILLUSTRATIONS.

Basildon Church.

The church is being built as a memorial to the men of Basildon who have fallen in the war. It is to be built of thin red brick, Portland-stone dressings, &c., and the roofs to be of stone slabs. The west end of the interior will contain an exhibit of trophies, and a great altar-stone is proposed to be set up under the nave. On the north and south it is proposed to build almshouses, and facing it, on the west, a village institute and cottages, with a large open space between. The architect is Sir Edwin L. Lutyens, A.R.A.

All Saints' School, Bloxham.

These buildings were originally erected from the designs of the late G. Edmund Street, R.A., and now require considerable enlargement. The plans have been prepared for the additional accommodation of eighty additional boys, with classrooms, masters' rooms, &c. Provision is also made for a swimming bath. It is also proposed to rebuild the headmaster's house, which was not part of the original scheme, and to provide in it accommodation for twenty-five boarders. The school is one of the Woodard schools. ASTON WEBB.

Suggested "Empire" Bridge at Charing Cross.

The advantages of a low level over a high level road bridge at Charing Cross are several. A river vista is not impeded, as it must be by a high level construction. A dual approach is possible to the bridge head from Westminster and the Embankment without first ascending to the Strand, and the same applies on the Surrey shore. A non-monumental slope, such as now forms a drawback to the Surrey approach to Waterloo Bridge, is avoided. The bridge can be placed in direct alignment with Northumberland-avenue and difficulties of cross-traffic in the Strand are evaded. The whole area of the present Charing Cross Station would become available for utilization.

The bridge illustrated accordingly adopts the low level form and is an integral part of the author's scheme published in the *Builder* of July 20, 1917, for laying out the Surrey side, whereby the South-Eastern and South-Western Railways would have symmetrical stations with common approaches from the bridge and direct communication with each other.

The value of some shelter for pedestrians crossing the river has frequently been propounded, and this stone bridge is accordingly designed to provide partial shelters, which are treated monumentally, but so constructed as not to add to police anxieties or interrupt unduly the vista. Sculpture illustrative of the war is freely introduced, as particularly suitable to a War Memorial.

In order to avoid the awkwardness of cross-traffic caused by trams, it is suggested that they should pass the Middlesex Embankment by a short tunnel in which could be a station connected with the Charing Cross Underground. It is not suggested that tram lines should cross the bridge.

A suggested War Museum on the Surrey shore is indicated on the drawing between the angles formed by the suggested new bridge and Waterloo Bridge.

The bridge levels have been carefully worked out and the author claims their practicability. The water way is not reduced from that of the existing iron bridge.

The dimensions of the bridge are as follows:—

	ft.	in.	
Distance between abutments	800	0	
Clear Waterway	730	0	
Centre Span 155 ft. Headway	21	0	
Intermediate Span ..150 ft. Headway	17	6	
Shore Span 139 ft. Headway	13	6	
Width	100	0	
Level at Centre	41	0	O.D
Level at Ends	30	0	O.D

Gradient—1 in 40

W. D. CAROE.

University of South Wales, Cardiff.

The photograph shows the north flank of the College Library as erected, beneath which, on the ground floor, are the professors' common rooms. The flanking bridge connects the library with its annexes, and forms, with its counterpart on the side of the library, a useful feature in the laying out of the group. The sloping way leads to the basement. The building is erected of Portland stone.

W. D. CAROE.

Sledmere, E. Yorks.

This house has passed through two important changes. It was originally a square block, probably of the Queen Anne period, and between 1783 and 1791 Sir Christopher Sykes, Bart., altered and enlarged it almost out of recognition in the style of the day from designs by J. Rose, an assistant of the brothers Adam. In May, 1911, Rose's house was totally destroyed by fire, the outer walls only remaining standing. The present owner, Colonel Sir Mark Sykes, Bart., M.P., wished it rebuilt on the same lines as before, with the principal rooms reproduced, and this, by the assistance of many of Rose's original drawings and details, which have fortunately been preserved, has been done with great skill and accuracy. The library shown in the illustration is a reproduction of the old one, and is 110 ft. long, 30 ft. wide, and 30 ft. high, the only alterations being a fine parquet floor, by Howard & Sons, and the pilasters of solid ebony, instead of deal painted to imitate marble. The "stone hall" (36 by 24) is an entirely new feature, constructed in place of an entrance passage and two small rooms, and is finished in French stuc and Hopton Wood stone dressings, the wind and barometer dials over the fireplaces being painted by Mr. Robert Burn, headmaster of Edinburgh School of Art. The entrance hall and grand staircase (illustrated) are entirely re-arranged, and instead of consisting of three separate apartments, as formerly, viz.: outer hall, grand, and secondary staircases, are thrown together and widened, a much more convenient and finer effect being obtained. The staircase is of fine Portland stone, and the balustrade of hammered wrought-iron painted and gilded. The designs of the decorative plaster ceilings, of which the old building contained some fine examples, have been reconstructed from the old drawings, photographs, and fragments of ornament which were collected after the fire, and carefully preserved. This work was excellently carried out by Messrs. Martyn, of Cheltenham, who fitted up a studio and workshop in York, in order that the models and casting could be done under my supervision. The rebuilding includes the erection of a private chapel and new servants' and kitchen wings to replace the old kitchen offices, which were inadequate and out of date. The first portion of the rebuilding was executed by Messrs. Holland & Hannen until the war broke out, when, at their request, they were released from their contract. Messrs. Walker & Slater, of Derby, then contracted to complete the work, and did so satisfactorily, and they supplied the whole of the library fittings.

WALTER H. BRIERLEY.

Jervaulx Abbey, Yorks.

The illustration represents a scheme for enlarging and remodelling an existing house built about 70 or 80 years ago as a shooting lodge for the Marquis of Aylesbury, and added to from time to time. It is situate close to the Cistercian abbey from which it takes its name, and amidst the fine scenery of Wensleydale. A plan and sketch of the house as it existed is given at the foot of the illustration, together with an outline ground plan of the proposed alterations. The tower and wing on the left side were commenced in April, 1916, and have been finished as far as the walls and roof are concerned, but the floors, plasterings and finishings are stopped owing to the war. This wing consists of a school room, day and night nurseries, gun room, lavatories, bath-room, and staircase. The outer walls are faced with scatched rubble of coral grit stone, and the same stone has been used for the chiselled dressings; the pitched roofs are covered with old stone slabs, and the flat roof of the tower with rock asphalt on concrete. The design for remodelling the old part of the house includes the formation out of existing rooms of a hall, 40 by 20 by 20, and the enlargement of the dining and drawing-rooms, but none of that work has been commenced. Mr. Thos. Anelay, of York and Doncaster, built the new wing.

WALTER H. BRIERLEY.

"St. Chad's Wood," near Kidderminster.

"St. Chad's Wood," near Kidderminster, by Sir Ernest George & Yeates, is a house for which the drawings are prepared, and await the resumption of building after the war. The house is of local sandstone, and roofed with small thick green-gray slate. The site is prepared and planted, and has the feature of a deep dell, formed by the valley of the Severn with its surrounding hills.

Leys School, Cambridge.

It is propoesd to erect a war memorial to old Leysians in the Quad, as shown in the view. The centre octagonal column will contain tablets with the names of the old Leysians who have fallen, with alternate niches for sculpture. This shaft is covered with an open groined domed enclosure, finished with a golden crown and surrounded by carved panels bearing the arms of the Army, Navy and the Leys School. A paved space round the monument is enclosed with a dwarf panelled wall, as shown in the drawing. There is a further proposal for a memorial cloister which would form a setting to the monument and also provide for a covered access from the various buildings to each other.

ASTON WEBB.

Church at Golder's Green.

Tenders for this church were received immediately after the outbreak of war, and, like similar work, it was postponed.

Offices, Hendon.

We also illustrate as an inset plate some proposed offices at Hendon, the architects of which are Messrs. E. R. Glanfield, J. G. Price, and Horace Field.

MEETINGS.

MONDAY, *May* 13.

Incorporated Clerks of Works (at Carpenters' Hall, London Wall). 6.45.

TUESDAY, *May* 14.

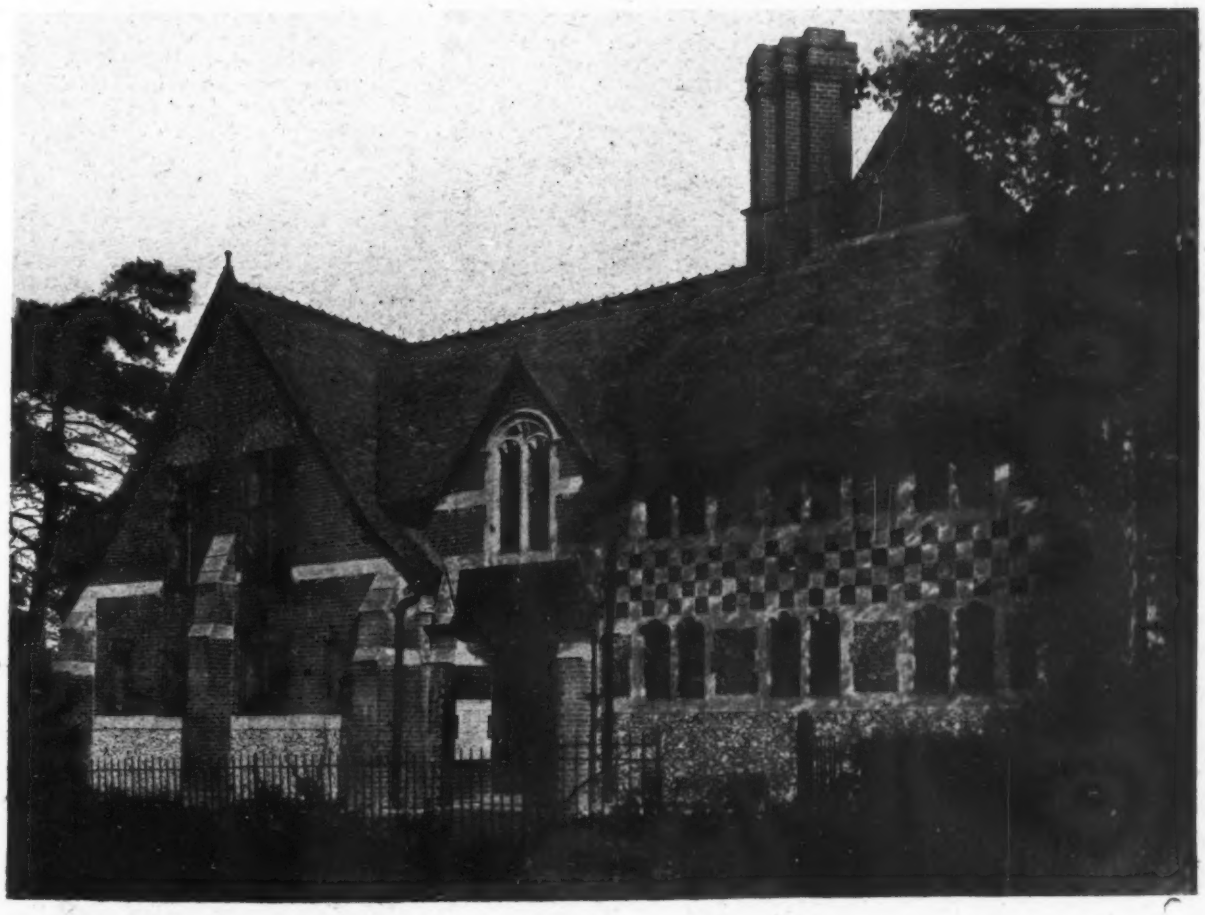
Illuminating Engineering Society.—Annual Meeting, John-street, Adelphi, London. Discussion on "The Lighting, Heating and Power Order (1918), and the Best Methods of Making Economies." 6.30 p.m.

WEDNESDAY, *May* 15.

Royal Society of Arts.—Professor Percy Groom, M.A., D.Sc., F.L.S., on "The Timber Industry." 4.30 p.m.

THURSDAY, *May* 16.

Architectural Association.—Ordinary General Meeting. Nomination of Officers and Council for session 1918–19. 5 p.m.



R. A. EXHIBITION.

Pennefather Memorial Buildings, Barnet. MR. WILLIAM C. WAYMOUTH, Architect.

THE ROYAL ACADEMY EXHIBITION.

THE PICTURES.

WE share what we believe to be the prevailing opinion of those who have already visited the summer exhibition at Burlington House: that it is, if anything, above the average; that it contain more than a usual number of excellent pictures. We miss, however, the work of Mr. Sargent and Mr. Orpen, and we should like to have seen some examples of the new Associate, Mr. Philip Connard. There are, of course, numerous war pictures, without, however, indicating any special interpretative quality. It is too early yet, perhaps, for the artistic realisation of war subjects; and we may, meanwhile, be very well content with the remarkable results of the camera, such as were recently on exhibition at the Grafton Galleries. Miss Lucy Kemp-Welch's "Big Guns going up to the Front," indicates powerfully enough the strenuous labours of our horses and soldiers in warfare; Mr. Salisbury's panel, intended for the Royal Exchange, which occupies the place of honour in the large gallery, depicts the King and Queen visiting a battle district in France; and there are numerous other works dealing more or less directly with the war, but none of a particularly inspired or striking character.

The picture which will undoubtedly provoke most discussion is Mr. Walter Bayes' "Under World." To this extent it will perhaps be the picture of the year. For our part we have no desire to range ourselves on the side of either of the opposing camps: we prefer to leave the artistic issues involved to the painters and the critics. We admit that we were greatly impressed by it; apart from the topical interest of the scene which it represents, it suggests a microcosm of the under world of a great city, a *macabre* life seen under detestable conditions but visualised with imagination, truth and decorative skill. Art, we fear, would become a stale and unprofitable thing if its creations are to be limited merely to the representation of the idealistic phases of life and nature, degenerating as they so often do to the trivial and sentimental, the pseudo-romantic. The force and character, the criticism expressed in Mr. Bayes' work, even at the present exhibition where there is so much excellent work, serve as a wholesome tonic. Of the ethical significance of the picture there can, of course, be no question. It might furnish a world of sociological commentary.

It is a good year for landscapes. Mr. Charles Sims is represented by two of his most charming works. His view of a Sussex countryside is remarkable for the serene and beautiful sky, which recalls the backgrounds of some of the early Italian painters. The tones of olive and green of the undulating country, with its comfortable habitations tucked away in its hollows or nestling on its slopes, are all characteristically English and represented with a feeling for the design which exists in nature. Mr. D. Y. Cameron also sends many notable landscapes, of which, perhaps, the principal is his "Waters of the Lorne," in the large gallery. He shares with Mr. Sims the feeling for pattern and design, the quiet harmonies which give his pictures such a complete effect. Mr. Arnesby Brown, Mr. Bernard Priestman, and Sir David Murray all contribute characteristic work. On entering the galleries Mr. Hughes Stanton's large canvas, "Cader Idris," terminates the vista through the second gallery. Mr. Hughes Stanton represents quite another school of British landscape painting; he appeals, with a bold and dexterous brush, to the energy of the pedestrian and mountaineer; to the lover of hills and tumultuous skies, breezy atmosphere, clouds and the shadows of clouds on the hills. Mr. Frank Walton in his Surrey landscape gives us a beautiful drawing of a tree, which stands, as it were, as sentinel on a heath of shrub and bracken. Mr. Alfred Parsons' "Yarrow," in which the mists are creeping up the moorland valley, is also an attractive work. Mr. Spenlove-Spenlove's two scenes from Belgium are certainly among the best pictures at the exhibition and are deservedly hung on the line; they have atmosphere, breadth and emotional quality. Amongst the other landscapes we observed two examples of Mr. James Henry's work (Nos. 541 and 576), and a view at Cambridge by Mr. Middleton Jameson. There are numerous sea-pieces, including four pictures by the late Napier Hemy. Mr Olsson contributes one of his effects of moonlight on water in the manner which is now familiar. Mr. Terrick Williams, in his "Moonrise before Sunset" and "White Boats, St. Ives," paints in a light key with the colours which the students of the effects of sunlight of the Impressionist school have more or less introduced into painting.

We always turn with pleasure to the work of the painters who are definitely decorative. Mr. Anning Bell is well represented by "Mary in the House of Elizabeth" and "The Rose Garden at Dawn." We are glad to see the announcement that the former work has been purchased by the Chantrey Bequest; it is effective in colour and drawing, and will make an interesting addition to our national collection. In the "Rose Garden at Dawn," a beautiful silvery light permeates the atmosphere and gives the picture its chief quality of tone. Mr. Cayley Robinson's "The Winter Evening" is also notable for its decorative qualities, for its form and colour, and its pleasant quiet sentiment. In the Water Colour Room, "Flora of the Alps," by Mr. Reginald Frampton, presents the ascetic figure of a girl seated in a garden of flowers with the peaks of the Alps in the distance. Another water colour by the same artist, "Mercy at the Gate of Peace," expresses somewhat involved symbolism, wrought, however, into a decorative plan and sensitive in colour. One of the most remarkable pictures in the Water Colour Room is Miss Hawksley's "The Storm." The artist has obviously gone to Japanese art for her inspiration, and has given us a work of great interest and imagination, beautiful in drawing and colour. Miss Clare Wilson, one of the most promising of our Academy students, in "A Lament," must take rank in our decorative group. Mr. C. F. A. Voysey's decorative panel, although hung in the Architectural Room, may perhaps be included more correctly under our present heading. It is a delightful piece of decorative design of birds and flowers studied from nature, woven into a pattern—a simple record in form and colour without perspective. The panel might serve for various purposes and materials—for embroidery, for instance—with charming effect. Mr. Voysey is a school unto himself in decorative design, and this is an interesting example of his work. Another architect—Sir Ernest George—contributes to the Water Colour Room two sketches, "Wells" and "Peterborough," drawn with his characteristic light and sure touch.

Although the work of two of our most notable portrait painters is not represented—Mr. Sargent and Mr. Orpen—their absence is scarcely felt. Sir John Lavery and Mr. Greiffenhagen particularly send many interesting works. Sir John Lavery's "Mr. Asquith" is a direct and dignified composition and, we should imagine, a capital likeness, although more stalwart perhaps than he is to-day. Mr. Arthur Hacker's "Sir Frank Short," wearing a blue blouse and gazing forwards with introspective eyes, occupies a prominent position in the second gallery; and in the next gallery the same painter's "Mrs. Ramsey," in black velvet, is an attractive portrait of a charming and graceful subject. "A Lady in Mourning" is a sympathetic interpretation, and one of Mr. Harold Speed's most effective works. Mr. Charles Sims has also sent a portrait, which will not escape attention. Mr. J. J. Shannon, fashionable painter *par excellence*, has perhaps done nothing better than his large portrait of Lady Broughton, which recalls the style and brio of a fashionable English painter of an earlier epoch. Mr. Ouless sends a self-portrait which he has painted for the Uffizi Gallery. The work of Mr. Van Anrooy is always interesting, and his unnamed portrait of an attractive subject in profile, against a plain background, is a good example of his method. Among other portraits which we noticed were Mr. Solomon's "Mrs. Redcliffe Salaman" and Mr. Nowell's "Mr. Arthur à Beckett Tyrrell."

Sir Edward Poynter and the older Academicians are all adequately represented. Mr. Clausen's interesting work is to be found on numerous walls, and Mr. William Strang has sent two pictures of characteristic didactic quality, although he seems to reserve some of his best work for other exhibitions. Mr. Henry Woods sends a charming picture of a Venetian girl, painted with the meticulous care which has made his Venetian pictures so popular.

A first impression of such a heterogeneous collection as that of the Royal Academy is necessarily incomplete and unsatisfactory. Where the artistic points of view are so various, the subject and treatment so promiscuous and opposed, it is beside the mark for a reviewer to indulge in his favourite theories, and name only the works that happen to fit them. A more catholic appreciation would seem to be necessary and the standard of criticism to be whether the artist has put his best into his work. Judged by that test, a vast deal of enjoyment may be derived from an exhibition which is certainly above the average.

THE SCULPTURE.

There seems to be a smaller number of exhibits of sculpture than usual at Burlington House this year; there are certainly fewer independent figures and groups to a large scale. In the lecture room, for instance, the only large upstanding figure is Mr. Gilbert Bayes' statue, "The Chequer-board." On the whole it is a sedate and respectable exhibition, all very restrained, and free, with one exception, from any imaginative conception of absorbing interest or variety in plastic thought. The modelling shows little of the boldness and power which have been at times evident in later years. No doubt many of our younger sculptors are now fighting, or their time is occupied in some work connected with the war. We note, for instance, with regret the absence of any example of Mr. Henry Poole's work, one of our most accomplished sculptors. The exception to which we have just referred is Mr. Gilbert Bayes' grandiose war equestrian statue in the quadrangle. To those who are familiar with Mr. Bayes' delicate and accomplished work to a smaller scale, this monumental group, so boldly conceived, and modelled with such freedom and vigour, will come as a surprise. To our thinking the pedestal, perhaps based on the scale of the famous equestrian statues at Venice and Verona, is a little too high to show the group to its full advantage. The uplifted head of the horse obscures the figure of the rider, viewed from certain angles, and this would not be the case, we think, if the pedestal were a couple of feet or so lower. It would certainly seem to be a Bayes year at the Academy. At any rate Mr. Gilbert and Mr. Walter Bayes are exhibiting work in the collections of sculpture and painting which will probably create the greatest amount of interest and discussion; but so far as the equestrian group is concerned there can be nothing acrimonious in the discussion.

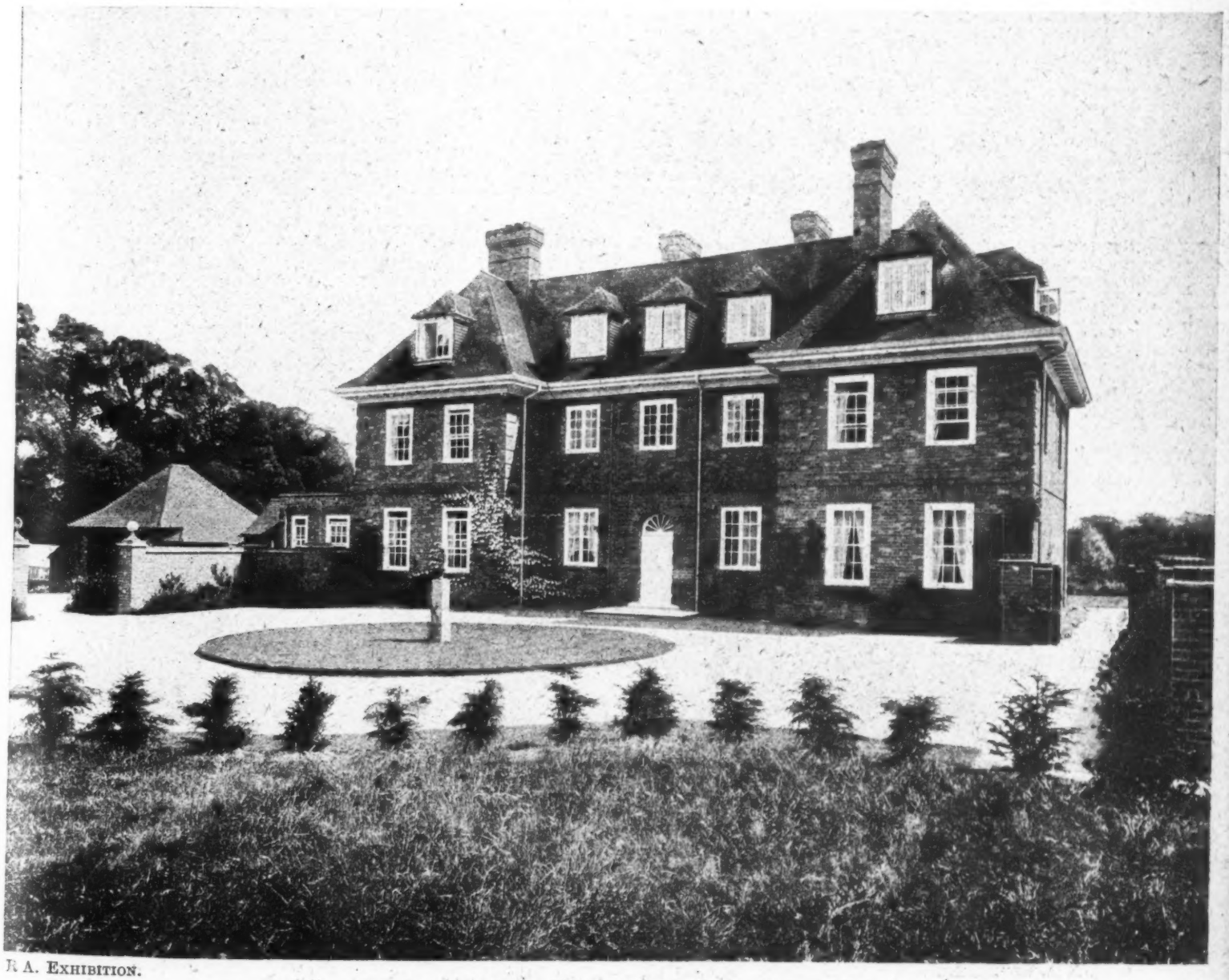
The larger figures and groups are, as usual, placed in the Central Hall, where we find memorial statues of the true official stamp—Sir Thomas Brock's "Lord Sydenham," for Bombay, and Mr. Pomeroy's "Lord Derby," for St. George's Hall, Liverpool—but possessing little interest otherwise. Mr. Derwent Wood's statue of "William Pitt," which is presented to the United States by the American women living in London, and Mr. Mewburn Crook's "Sir Thomas Picton," for Cardiff City Hall, have much greater interest and character. There are numerous allegorical or symbolic figures. Sir Goscombe John's models of two granite figures for the Engine Room Heroes Memorial at Liverpool, "Air" and "Water," are bold, imaginative evocations, freely handled; and Mr. Paul Montford sends three independent figures destined to form part of a group to be

placed on Kelvingrove Bridge, Glasgow, representing "Shipbuilding," "War," and "Industry." The figure of war is symbolised by an early Highlander of wild mien and with the fierce shouting mouth which distinguishes the dominating figure of the greatest war group in the world on the Arc de Triomphe in the Champs Elysées. Mr. Ward's "Outrage" is in idea rather a pictorial than a plastic conception, with the ruins of a church, a crucifix remaining on its shattered walls, and a nun bending over the figure of a nude girl. Mr. Arnold Wright's group bearing the legend in the catalogue, "And Ruth said: 'Intreat me not to leave thee or to return from following after thee,'" is harmonious and attractive in feeling and execution, in which the drapery of the monastic costumes of Ruth and her companion fall into classic folds. The same sculptor's fallen figure of "Icarus" and Mr. Crook's "Belgium" provide interesting examples of modelling in the somewhat attenuated figures of a youth and maiden.

The number of portrait busts in the Lecture Room is as great as, or greater than, usual, and many of them will attract popular attention, while there are others of well-known personages in the art world. Mr. Pegram's sympathetic interpretation of "Nurse Cavell," part of a memorial to be erected at Norwich, will, no doubt, satisfy the general conception of this victim of German methods of warfare. Mr. John Tweed exhibits busts of two South African notabilities, the late Sir Starr Jameson and General Smuts, modelled in a more restrained manner than is usual with him, and these will also, no doubt, attract considerable attention. "'Old' Odell," a portrait bust by Mr. Albert Toft, will recall to many of our readers pleasant nights at the Savage Club and its most characteristic, quaint and genial member, the cheeks of the Quixotic head now, alas! bearing the marks of time. Mr. Derwent Wood's portrait busts must be included not only among his best work, but the best work of his time. His "Second-Lieutenant Wilcoxson," in bronze, is stylistic and beautifully modelled Second Lieutenant Wilcoxson has in turn retaliated on Captain Derwent Wood by an admirable portrait bust, in which fierce determination—is it military as seen by a subaltern?—is the dominant characteristic of the expression. Mr. Macdougald has contributed another likeness of the Strang family to the present exhibition in his capital head of Mr. Ian Strang. Mr. Derwent Wood also sends two portraits in relief, "Mrs. Luke Hansard" and "Mr. Seymour Lucas," which, however, do not possess the same interest as his other works in portraiture. Mr. Reynolds Stephens' study for a head of Sir James Yoxall, in terra cotta, is interesting, and we were glad to see a head of that genial artist and great teacher the late Professor Lanteri, by Mr. Charles Wheeler. This bust suggests that there should be some sort of permanent memorial to the man who through his sympathetic instruction at South Kensington did so much for British sculpture. Of the numerous portrait busts of children we found those of Mr. Pomeroy (Nos. 1,496 and 1,513) the most attractive. Mr. Pomeroy would seem to have a special gift for portraying the subtleties of fleeting expression of the happy moods of children. We must not omit to mention "The Lady Cynthia Curzon," by Mr. Victor Rousseau, a beautiful subject modelled with facile grace and charm, which is characteristic of certain schools of French sculpture. The busts "Resolution" by Mr. Hardiman, and "Pax Dolorosa," by Mr. Wynn, both in bronze, are dignified conceptions of a somewhat traditional type. It may be gathered from our brief mention of the portraiture that the exhibition is in this respect one of considerable interest.

As was to be expected, there are numerous war memorials. The two most important exhibits in the Lecture Room are the memorial tombs with recumbent figures by Lady Feodora Gleichen and Mr. Bertram Mackennal. Lady Gleichen's monument, with the bronze gilt figure of the late Lord Ingestre in his uniform of a captain of the Royal Horse Guards, holding his unsheathed sword to his breast and with gilt decorations on the tomb, is ornate and imposing. Mr. Mackennal's figure in bronze of the Hon. John Manners is also in uniform, and the sketch model which the artist also exhibits of the architectural features which will form a background to the monument, invest it with additional artistic interest. Mr. Mackennal has also sent a war memorial of a classic architectural character. Mr. Alfred Drury's solitary contribution to the exhibition is a

(*Continued on page* 288.)



R A. EXHIBITION.

Aldenham Grange, Herts. MR. WALTER CAVE, Architect.

FUEL ECONOMY IN COOKING APPARATUS.*

LECTURE II.

Cost of Fuel to Consumer in Oven Heating.

The actual cost to the consumer can be determined at once when we have the figures for efficiency, the characteristic curves of the stove and the cost of the fuel or of electrical energy respectively.

Table V.

Cost to Consumers of Fuel for Oven per 1,000 B.T.U. delivered to Food.

Kind of Fuel.	Price per	Cost in Pence per 1,000 B.T.U. Delivered to Food.	Relative Cost.	Cost of Fuel in Pence for 3-Course Dinner for 5 Persons.
Coal	20s. ton	.264	100	.660
	25s. „	.330	125	.825
	30s. „	.396	150	.99
	35s. „	.462	175	1.15
	40s. „	.528	200	1.32
	45s. „	.594	225	1.48
	50s. „	.660	250	1.65
Gas	2s. 1000 c. ft.	.456	173	1.140
	2s. 6d. „	.570	216	1.42
	3s. 0d. „	.684	259	1.71
	3s. 6d. „	.798	303	1.99
	4s. „	.912	345	2.28
Electricity	½d. unit	.35	133	.875
	¾d. „	.70	265	1.75
	1d. „	1.05	398	2.62
	1d. „	1.40	530	3.50
	1½d. „	2.10	796	5.25
	2d. „	2.8	106.	7.00

Table V. gives an idea of the comparative cost to the consumer in fuel alone, starting in all cases from cold and without any consideration of convenience or other extraneous matters.

It is not to be expected that in determining which of these methods he should employ the consumer will take the national interest into account. The consideration is too remote. Thus a man cannot be expected to pay, say, 10s. a week for energy for cooking purposes when he can get all he requires for 5s., merely because it has been pointed out to him that by spending 10s. he economises to some extent in the national reserve of fuel. He will consider in practice partly or perhaps chiefly the cost of the energy to himself, and secondly the convenience to the domestic establishment of the kind of energy he employs. Considered jointly on the basis of fuel economy and convenience, it is probable that a judicious combination of solid fuel, gas heated appliances and electrical cooking appliances would be more suitable than any one of these agents alone. This question will be considered later. It would need, however, a greater amount of initial expenditure not only in plant but also in the provision of mains and conductors, &c., than the single provision, for instance, of the one stove. It is probable that the first cost would tell with the ordinary consumer even more than a moderate saving in the cost of upkeep.

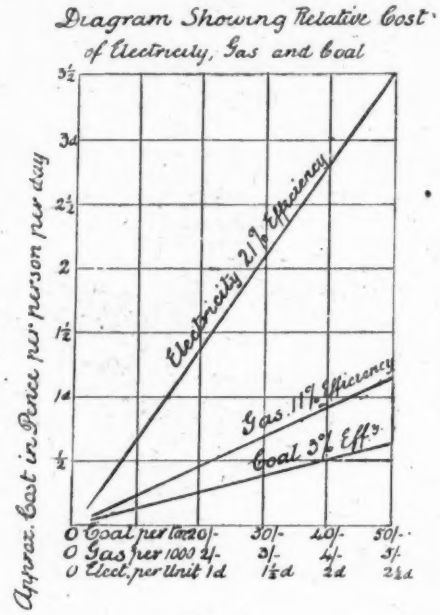


FIG. 8.

Waste in Roasting and Toasting by Fire.

The process of roasting or toasting is equally extravagant. Here, with solid fuel we make a large fire in an open grate, causing the fuel to be incandescent and so give off radiant heat. We allow air free access to it so as to waste as much heat as it happens. In plain English, we light the fire and let the heat escape just as it likes with no effort whatever to check or curtail the waste.

Then we hang our joint exposed to the radiant heat at such a distance from this large fire as

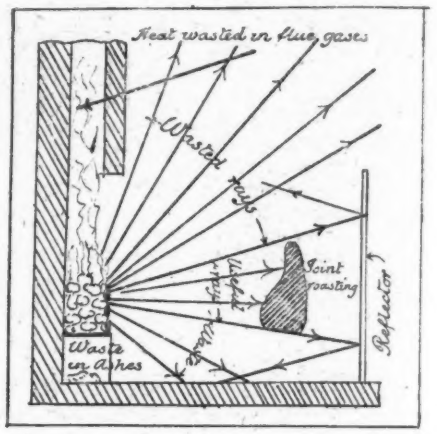
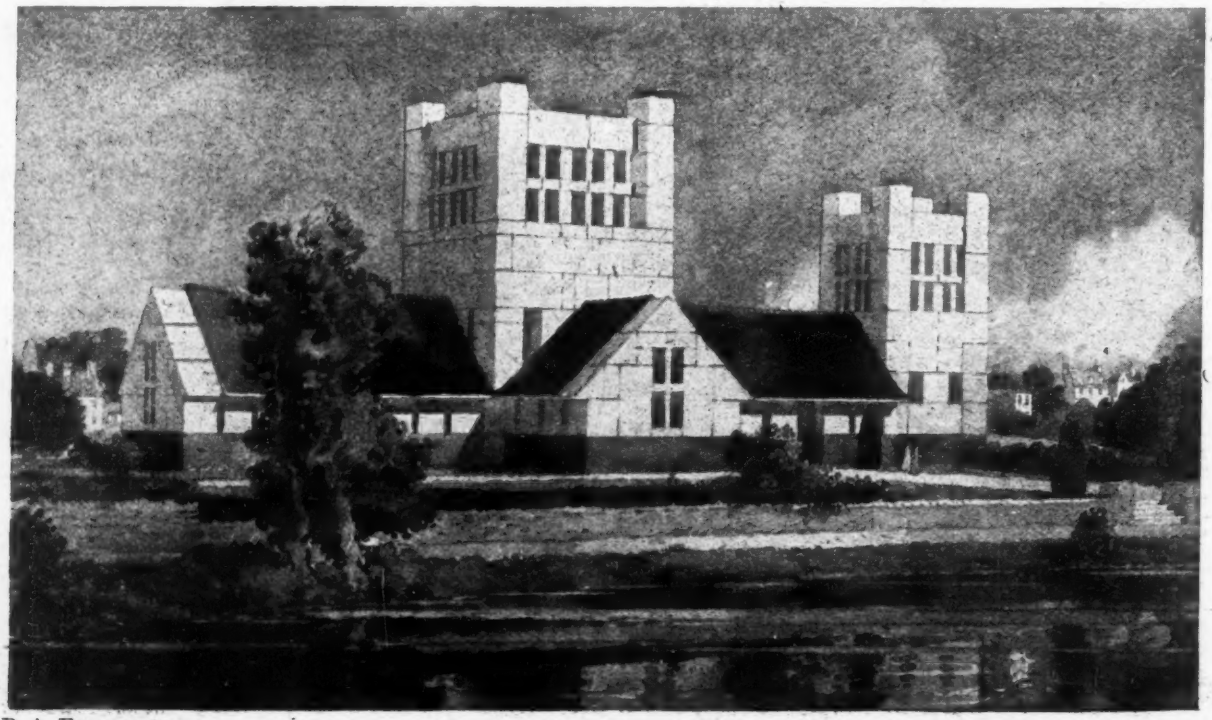


FIG. 9.

necessary not to burn it, and allow it to hang there until it is done, taking no thought whatever of the waste of heat. To begin with, we are only using the radiant heat of the combustion, which is a small proportion of the total. Science does not yet know how much of the total heat of the combustion is given off as radiant heat, probably about 30 per cent. Thus we waste 70 per cent. of the heat straight off. Of that available balance of 30 per cent. perhaps 5 per cent. or less will fall on the cooking joint, making the total waste of heat 98 per cent. or more. The remainder is allowed to pass up the chimney or into the kitchen, thus overheating it, causing acute discomfort to the kitchen staff, with a result on the cook's temper which has almost passed into a proverb, and producing the effect that in very many cases the cook takes to drink. It sounds laughable, but in reality it is no laughing matter. Cooks are sneered at for taking to drink, but in many or most cases they cannot help it. It is a physiological matter. The fault which causes the cook to take so often to drink is the grievous failure of our engineers and men of science to make the conditions in the kitchen tolerable; almost directly it is due to our complete ignorance of the proper way to use fuel energy.

* Concluding instalment of the second of a course of lectures delivered at the University College, Gower-street, by Mr. A. H. Barker, B.A., B.Sc., on January 23, and subsequently. Instalments of the first lecture were given in our issues for March 15, 22, 29 and April 5.



R A. EXHIBITION.

Design showing the use of Lott's Toy Bricks. MR. ARNOLD MITCHELL, Architect.

Waste in Toasting by Gas and Electricity.

Toasting by gas is only a shade better. The gas flames are allowed to play freely, exposed to the air, on iron radiators, which they make red hot and so give off radiant heat, as well as the large proportion of convected heat which is wasted. All the rest of the heat of the gas flame is allowed to pass into the kitchen, poisoning and overheating the air.

Electricity is especially suitable for the production of radiant heat, but the makers have generally, though there are exceptions, not realised that when a body is raised to incandescence a large part of the heat it gives off is by unnecessary convection currents of heated air. In most toasting apparatus cold air is allowed free access to the red hot grilling elements, carrying away and wasting a large part of the heat, whereas the elements ought to be surrounded by air as hot as the elements themselves, and only the radiant heat allowed to escape, and that should all be directed on to the article operated upon.

Waste in Boiling and Steaming.

We next come to the consideration of the processes of cooking known as boiling and steaming. The essential of these processes is that the food cooked is kept in contact either with water or with vapour at a temperature of 212 degs. for the necessary period, whatever that may be. The process by which, in a domestic establishment, heat is supplied to the cooking vessel (which we may imagine to be a saucepan) is as extravagant and inefficient as are the processes to which allusion has already been made. The vessel is either placed directly on an open fire, coming in contact with the glowing coal at the bottom, and being surrounded with cold air on all other sides until the liquid in it is brought to the boil, the surplus heat passing off in the form of steam, all the heat which it receives.

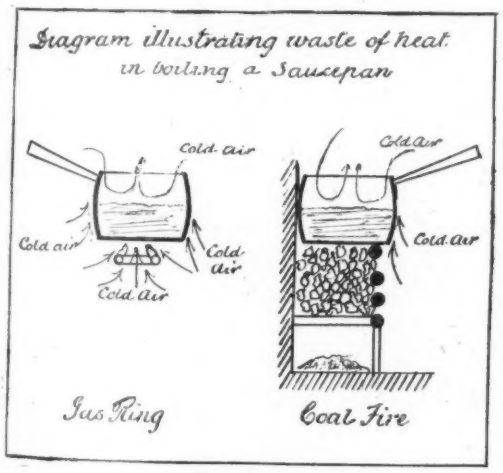


FIG. 10.

It is either left there or moved to some cooler part of the fire, or some distance away from it, according to the intensity of the ebullition which the cook imagines to be necessary. Another process is to place the vessel on the hot plate of a closed range kept hot by the process of combustion underneath the plate or by the removal of the exterior or fire doors to which allusion has been made, replacing the same by the vessel, the remainder of the vessel or pot being surrounded on all sides by cold air.

Waste in Boiling by Gas.

In gas cooking the standard method of conducting these processes is to place the vessel over a gas ring which is lighted and a bunsen flame plays upon the bottom. In this case free access for cold air is allowed round each one of the gas jets, reducing the attainable temperature by a thousand degrees or so and causing the products of combustion, which should be extremely hot, to be little more than lukewarm. It needs only a small amount of thought to see the excessive extravagance of all these processes. There is not one of them which probably has a usual efficiency greater than 20 per cent. or 25 per cent. Every scientifically minded person has probably many times experimented roughly with the efficiency of a boiling kettle, and found results in the neighbourhood of 20 and 25 per cent. of the total heat. The result of a careful series of experiments under the best

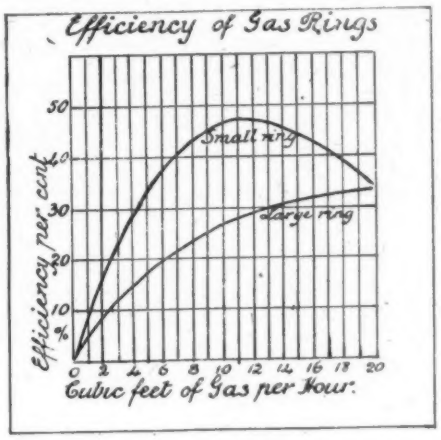


FIG. 11.

conditions is shown in figure 11. It shows clearly that with each gas ring there is a point of maximum economy; but of this more will be said later.

In all these cases either heat or vitiated air is allowed to escape into the air of the kitchen, poisoning the atmosphere and making the task of the cook a very heavy one, all of which is quite unnecessary.

Comparison of Solid Fuel, Gas and Electricity as Heat Media.

Attention has already been called to the comparative cost of these three agents. These relative costs, however, are considerably modified when regard is had to the different degree of efficiency with which they can be used in practice, and their different degree of convenience. I have discussed in the first lecture the comparative merits of the three agents. Generally speaking, the use of solid fuel is attended with considerable practical disadvantages, although, as I have shown, it is cheaper (1) in regard to the dirt and dust which they create, (2) to the creation of smoke and soot, which cause a periodical cleaning of the chimney and flues to be necessary, (3) to disadvantages and inconvenience of ignition. Coal, of course, produces soot and smoke to a far greater degree than does coke; coke is, however, so exceedingly difficult to ignite, and when ignited to keep alight, especially in certain kinds of grate, that its use, in many cases, is impossible. In all cases to ignite solid fuel requires the use of paper and wood, and certain waste of time in cleaning out the grates and stoking the fire, &c., together with the time occupied in attaining the proper degree of combustion. When, therefore, a fire has to be frequently lighted and let out, the use of solid fuel is distinctly inconvenient: it is only when the heat is to be kept on continuously and economically that the advantage of the use of solid fuel is pre-eminent, and when the suitably designed grate and draught are attainable. When, however, the use of the heating appliance is only intermittent, that is when it is to be continually turned on and off and when the heat may be required at short notice, then the use of gas and electricity becomes more economical. There is, of course, no difficulty at all in securing the ignition of gas; a tap turned on and a lighted match, and the heat is instantly available. And further the heat can be regulated to a great nicety without the least difficulty, merely by opening or closing the tap. The enormous advantage conferred by these agents is counterbalanced by the fact that persons handling them are commonly not very intelligent in their use, and by the general absence of oven thermometers, which enable the greatest economies to be effected. Also the general neglect to make use of the residual heat in an oven, whereby the consumer of gas can be shut off a considerable time before the cooking operations are finished, without any detriment to the result.

Waste of Heat by the Cook.

Having thus discussed the principal avenues through which waste of heat takes place, due to defects in the design of the apparatus itself, it is necessary to enter upon the even more hazardous task of showing how heat is wasted by the cook. This part of the subject may be divided into two branches: (*a*) Those caused by carelessness, (*b*) those due to ignorance. Generally speaking, for the former of these there is no complete remedy. For the latter the only remedy is education.

Waste due to Carelessness.

The careless person, in whatever rank of life he is found, is a bad citizen and essentially an unworthy man or woman. I mean by a careless person those in all walks of life who, whatever job they are doing, do not care how the job itself is done but only for the trouble they themselves may get into, or the money they themselves may make or lose. For that there is no cure except deposing the person from a responsible position and putting her at work where she can do no harm. I may perhaps indicate two or three of the principal sources of waste due to sheer carelessness: burning fuel when it is obviously not necessary, making a large fire when there is little or no cooking to be done, leaving gas flames alight or electrical switches on after the cooking is completed, or in a large kitchen using two or three gas stoves when one would do all the work necessary, using a large gas ring when a small one would serve, throwing away unburnt fuel in the ashes, allowing the oven doors to remain open, allowing kettles and saucepans to boil dry, waste of hot water, and multitudes of other similar things.

There is one possibility of misusing any cooking apparatus whatever, which must be borne in mind carefully. Attention has been drawn to the fact that heat is absorbed at a great rate during the process of heating up the food and at a greatly reduced rate during the period of temperature maintenance. Now, in order to avoid waste of time during the heating up period the apparatus must be made sufficiently powerful for the maximum demand: thus there is placed in the hands of the cook the power to waste ten times as much as is necessary during the maintenance period. This power would not be needed at all but for the necessity of saving time during the heating up period. To check this waste, intelligence and care are needed—attributes which are not too frequently seen in the kitchen.

Waste of Heat in Manipulation.

There is another process which leads to a good deal of waste of heat in the course of cooking operations, as to the necessity of which I am not in a position to pronounce, namely, that of basting a joint, which consists of pouring over the surface of the joint during the cooking process the grease and gravy which exude from it. This is commonly done by opening the oven door (thereby cooling the interior 100 degs. or more) and lifting the grease with a spoon. This process may or may not be necessary. If it is, arrangements could be made for it to be done without opening the oven door. A similar source of waste arises from the unnecessary opening of the oven door to inspect the appearance of the joint. This should never be necessary, since all properly fitted ovens should be provided with a double glass window for inspection purposes; indeed, no inspection of the joint should be necessary at any time if the oven temperatures are maintained correct. This necessity for frequent inspection is entirely due to the common practice of the cook of conducting operations by the light of nature rather than according to definite well-defined rules; it is the absence of such well-recognised rules which gives rise to the necessity for frequent inspection.

Waste Due to Ignorance.

One may perhaps sub-divide the ignorance which is the cause of so much waste into (*a*) general ignorance of the elementary facts of science and lack of general common sense, (*b*) special ignorance of the facts relating to cookery and the chemistry of food. In the first class may be included the generally complete ignorance of the typical cook, even the better-type class, as to the nature of heat and the way it escapes, the knowledge that so much heat and no more corresponds to so much coal or gas or electricity, the knowledge that violently boiling water is no hotter and no better for cooking than gently boiling water, and that boiling water is only hot water from which heat is escaping as fast as it is received, and that there is no particular virtue in the temperature of boiling water (212 degs. F.) except that it is the highest temperature that water can be heated to in the open air. What steam is, that so much steam corresponds to so much fuel, the general meaning of temperatures and its importance. The appreciation of the fact that where cooking can be done by merely keeping things hot for a given time there is no need for a fire at all after the food is once heated up. The same result can be obtained by not wasting as by spending heat.

Economy due to Use of Instruments.

It needs a certain degree of general intelligence to appreciate that a uniform result will always be secured in uniform material by the application of a uniform process, and the degree in which the uniformity must be varied to suit special cases, that the surest way of securing a uniformly good result is to watch the weighing scales, the clock and the thermometer, instead of proceeding by handfuls and the light of nature and intuition.

With general ignorance may perhaps be classed the stubborn vanity, stupidity and general unwillingness to learn, which often characterises ignorant and uneducated people.

It is not unfair to say that the intelligence of the ordinary cook is not sufficiently highly developed to enable her to appreciate the indications of such instruments or to profit by them. It would, therefore, seem, from whatever point of view this problem is looked at, that its solution is essentially a matter of education. The lack of knowledge of even the better class of cooks is astonishing. For instance, of how many cooks could it be said of that they understand that water which is gently boiling is practically at the same temperature as water which is boiling violently? To keep a vessel of water boiling violently costs perhaps ten times as much fuel as to keep it boiling gently. Yet the vast majority of cooks do not understand that they are attaining exactly the same result by a gentle simmering as they would by violent ebullition. I have often personally endeavoured to explain to cooks of both sexes this elementary scientific fact, but I have never succeeded in convincing them that it is true. Violent ebullition is in fact nature's means for wasting the surplus heat which is communicated to boiling water. Again, as a further illustration of the need for intelligence and imagination in the conduct of cooking operations, I have many times seen in a large kitchen in an institution which may have, say, four gas ovens available, all of them in use at the same time, each having one dish in it. An intelligent and economical woman would accomplish all the requirements by the use of one only, or at most two, and packing them full in a suitable manner. An incompetent woman would use all the four to do the same work, and in doing so would waste as much gas as would be required to cook ten times the amount of material, which would entirely fill all the four ovens. Indeed, it sometimes wastes more fuel to cook a single dish in a large oven than it does to cook an oven full of dishes.

Waste due to too large Apparatus.

Indeed, one of the chief causes of waste of heat is a disproportion between the size of the cooking apparatus and the work to be done by it. The waste of heat in an oven or other apparatus is almost in direct proportion to its size. I shall deal with this question fully in the next lecture. In the present one, I can only point out that a woman who uses a large oven when she has a small one available—and if she has not one, she ought to see that she gets one—is wasting almost the same amount of heat as if she were using the large one to its fullest capacity. It is almost, but not quite true, that it takes nearly but not quite as much power to cook a single small pie in a large oven as it does to crowd the oven full of similar pies; the principal amount of waste is occasioned by the size of the oven and not by the amount of material in it.

Advantages of Education to the Cook.

And the great drawback of the lack of education is that an uneducated person commonly has no powers of observation by which she might learn such facts for herself and draw the necessary deductions from them. She is precluded by her lack of education from learning by experience in any real or complete sense. It is not learning by experience to do the same silly thing a thousand times unless one makes notes mental or written of the mistake or the variations in the result. One of the glories of this art is that it is full of potential science, full of experimental possibilities for a cultivated mind, full of administrative opportunities; there is enough in the subject itself to place a competent exponent on the same intellectual level as a scientific manufacturing chemist, a surgeon or an engineer, or any other practical science in which practical achievement may be combined with the most concentrated intellectual activity. All that vast field of incomparable interest is closed to a woman who has no education and, in consequence, no scientific imagination. The dignity of that position, too, is closed to women, because a cook is regarded as a servant or menial by one of those silly conventions which this century will sweep out of existence.

It is not part of the present intention to refer to the principles of cooking except in so far as it is necessary to present the points involved in the discussion on waste of fuel.

Economy attainable by Uniformity of Procedure.

All cooking operations consist in the preparation of the food, and subsequently subjecting it to treatment by heat. In every separate case there is a certain preparation necessary, and the best heat treatment can be laid down in precisely definite terms. If these terms are departed from in any considerable degree, the result is waste either of food or destruction in some degree of the quality of the food, or possibly waste of fuel, or generally all three. It is possible, for instance, to lay down exactly the heat treatment required by, say, a 7 lb. joint of beef or a joint 5 in. in thickness. It should be subjected for a certain number of minutes to a temperature of such and such, and thereafter to a reduced temperature of so and so for a certain number of minutes, the time varying according to the quality of the result desired and perhaps according to the quality of the meat.

The process of photography has been similarly developed. It was at one time thought necessary for a correct development of a film or a plate that the whole process should proceed under the eye of the photographer. It is now known that, given a correct exposure, the process of development can be safely allowed to proceed without any attention on the part of the manipulator; that with a solution of certain strength and at a certain temperature and the plate correctly exposed, the process of development will be as perfect as it can be made. The same is entirely true about cooking, and if this fact is borne in mind it would simplify to a great degree the economizing of the necessary fuel.

Advantages of Low Temperature Cookery.

Expert persons in cookery, of whom of course the present exponent does not claim to be one, are strongly of opinion that it is a national failing in this country to cook at too high a temperature. A high temperature is said to harden the food and spoils it from the point of view of nutrition and taste. Such is the best expert opinion. I venture strongly to advise all those whom these words reach, to consider this point carefully, because this fact is the cause of a very large, indeed an enormous annual waste not only of fuel, but also of food in this country. If we maintain our ovens at 400 degs. when there is no need for a temperature higher than 330 degs., we are probably wasting 50 per cent. of the fuel which we are burning. Further, if the cooking process can be completed at a much lower temperature than is customary in the ordinary kitchen, it is evident we could allow our fire to go out or burn low, or shut off gas or electric supply, and allow the residual heat in the apparatus to complete the process without wasting any more fuel. As to all such questions there appears to be very little accurate information available, and I venture to suggest to those capable of undertaking such work that a great deal of research on this point would be amply justified.

THE ROYAL ACADEMY EXHIBITION

(*Continued from page* 285.)

marble memorial tablet dedicated to one of our gallant flying men. "The Entombment," a war memorial reredos by Mr. Reynolds-Stephens, in which the subject of the design, with guardian angels, is modelled in relief and framed with various coloured marbles (black, green and yellow), is a notable example of the artist's artistic skill and craftsmanship.

Mr. Roslyn's relief in bronze is not directly connected with the war, although it may be a sympathetic outcome of one of its phases which induced the workers of Great Britain to present "The Triumph of Labour" to the workers of America. The plastic idea of the design of the panel is divided into two parts by a central projecting figure holding a banner; the first part representing a procession, in classic style, bearing the fruits of the earth, and the second, modern realistic figures of workers from the farm, the mine and engineering shop. Mr. Sydney Perks and Mr. Pomeroy are associated in the production of a bronze wall tablet, to be placed in a city building to the memory of the poet Thomas Gray. Mr. Perks' restrained and refined design should serve as an example for panels of the kind. It is pleasant to find an architect and sculptor associated in work of this character. Mr. Anning Bell's small relief in colour, "The Fortune-teller," in which the principal colours are red and gold, is a fanciful illustration of the art of palmistry. Mr. Clarkson's two enamels, "St. George" and "Truth shall Prevail," as well as Mr. Harold Stabler's enamel champlevé of heraldic design, should not escape notice.

Sir George Frampton is only represented by a statuette, "The Knight of the Ounce," a debonnair, graceful figure in elegant armour. Two smaller equestrian figures, Sir Goscombe John's sketch model of a statue to Lord Wolseley to be placed in Trafalgar-square, and Mr. Walter Winans' "King of Italy," the original of which is in the Royal Palace at Rome, suggest the interest of comparison, although it is, perhaps, scarcely fair to judge Sir Goscombe John's finished work from a sketch model. But if, as we presume, it is an adequate representation of his design, it suggests the disadvantage under which Academicians seem to work when they receive commissions of an official character; a disadvantage which somehow seems to deprive them of the inspiration and skill which are really theirs. Dullness in art is not very excusable. Mr. Winans' man and horse, on the other hand are instinct with life and character.

The International Society.

The vacancy caused by the death of M. Rodin in the presidency of the International Society has been filled by the election of r. William Strang, who succeeded Sir John Lavery in the vice-presidency, and Mr. Charles Shannon has been elected Vice-President in place of Mr. Strang.

THE BUILDING TRADE.

WAR MATERIALS AND METHODS IN USE IN ENEMY COUNTRIES.

In the foreign technical Press interesting particulars are given from time to time of the use of materials and methods adopted by the enemy to overcome difficulties created by war conditions, and we propose to give occasionally brief abstracts of any information of special interest to our readers.

Zeitschrift des Vereines Deutscher Ingenieure of April 28th, 1917, describes a number of processes for manufacturing asbestos cement tiles. The newest process is the "dry" process of Osterheld, and differs from the process by L. Hatschek in the fact that the asbestos and cement are prepared seperately, and the cement is sprayed in a finely divided state on to the asbestos, so that alternate layers of cement and asbestos are formed.

In the issue of the same journal for June 23, 1917, a process is described by which cast iron may be protected from rusting by the use of cadmium, which is combined with copper or zinc. The covering is not melted on, but is formed cold by an electrolytic process, which is described.

The same journal for May last year gives a description of wooden floors made of nut-wood blocks from waste wood obtained in the manufacture of stocks for rifles. During the war there has been a large quantity of waste pieces of nut-wood available, and the pieces have been cut into thicknesses of between 4 and 6 cm. so as to be laid on a cement foundation about 15 to 20 cm. thick, with the cross-cut surface upwards. The blocks are impregnated and laid close to one another and then coated twice with the material that is generally used in laying wood-block floors. It is claimed that floors made with this material are very satisfactory as, owing to the careful treatment that the wood has undergone for its prime purpose in making stocks, it lies quietly and is not affected by changes of temperature and humidity. In ordinary times, of course, the cost of nut-wood would prevent its use for this purpose.

Particulars of a grading sieve are also given (German Patent No. 291,692). The sieve is of a cylindrical shape and rotates about its axis which is slightly inclined to the horizontal. The cylindrical surface is multiple and consists of a series of cylinders one within the other with holes of graded sizes. By means of levers, traps may be opened which enable any selected size of particles of the material to fall out at an opening provided for the purpose (April 28, 1917.)

Ordnance Maps.

Discussing the effect of the metric system on the surveyor's profession at a meeting of the Surveyors' Institution, on Monday, Lieut. A. J. Martin criticized the procedure followed with regard to our Ordnance maps. Although an international scale was decided on at a statistical conference in Brussels in 1853, and our original Ordnance Survey was made to a metric scale, we did not, he said, even show the international scale on the map, but only the reference fraction, which the foreigner at once recognized as metric. Instancing the case of a naval base which had been bombed by the enemy, Lieut. Martin pointed out that this was rendered easier by the fact that the flights were by kilometres, the maps of the land below were in kilometres, while we had surveyed the land for the enemy and plotted the maps to their scale, which so far we had not adopted for ourselves. If a foreign army were landed in this country, all the sightings of the enemy's big guns, rifles and other weapons would be to the same system of measures as our maps; whereas with us they would be different; and the scales on our maps were so complicated that in our own country and with our own maps we should be more liable to errors regarding distances than the enemy would be.

LAW REPORTS.

THE COURT OF APPEAL.

(Before LORDS JUSTICES PICKFORD, WARRINGTON AND SCRUTTON.)

Building By-laws: Governors of Repton School v. Repton Rural District Council.

Judgment was delivered on the 3rd inst. in this case, which came before the Court on the appeal of the defendants from the judgment of Mr. Justice Bailhache in the King's Bench Division (the *Builder*, November 16, 1917).

The facts of the case were as follows:—

The Governors of Repton School, in 1916, proposed to make alterations in one of the school boarding houses, which included an addition to the house of a projection three stories high, with a room on each floor. The work was commenced in August, without the deposit of any plans with the defendants, as the local authority; but on the latter demanding that the deposit should be made, the requisition was complied with and the plans accordingly deposited on September 28, 1916; however, the defendants resolved that the plans should not be approved, as the alterations did not comply with by-law 12 of the defendants' by-laws as to the provision of open space in the rear of new buildings.

This by-law reads as follows:—

(1) "Every person who shall erect a new domestic building shall provide in the rear of such building an open space exclusively belonging to such building, and of an aggregate extent of not less than 150 ft., and free from any erection thereon above the level of the ground, except a water closet, earth closet or privy, and an ash pit."

(2) "He shall cause such open space to extend laterally throughout the entire width of such building, and he shall cause the distance across such open space from every part of such building to the boundary of any lands or premises immediately opposite or adjoining the site of such building to be not less in any case than 15 ft."

By-law 1 defined "domestic building" as meaning a dwelling-house or an office building, or other out-building appurtenant to a dwelling-house, whether attached thereto or not.

The plans deposited by the plaintiffs were in all other respects in accordance with the defendants' by-laws.

The plaintiffs' contention was that it was impossible to provide an open space in the rear of a new building which consisted of an addition to the front of an existing building, and that by-law 12 was unreasonable and *ultra vires*.

The plaintiffs proceeded with the work, and on December 29, 1916, the defendants served them with a notice calling upon them to show cause why the addition should not be pulled down and removed; and if the notice was not complied with, threatening to pull it down.

Accordingly the plaintiffs commenced the present action for an injunction to restrain the defendants from pulling down, removing, or otherwise interfering with the addition to the house.

Mr. Justice Bailhache held that the addition proposed to be made must now be considered to be a new building, although perhaps it might not have been a new building before 1907, as before then it would probably have been an addition to an old building. Section 23 (*d*) of the Public Health Acts Amendment Act, 1907, provides that "the making of any addition to an existing building by raising any part of the roof, by altering a wall, or making any projection from the building, but so far as regards the addition only, . . . shall be deemed to be the erection of a new building." The by-laws in question were made long before 1907. His Lordship came to the conclusion that by-law 12 was unreasonable as preventing an owner of property from doing what he ought to be able to do. He thought that since the passing of the Act of 1907 the by-law had become unworkable and must therefore be revised. He accordingly entered judgment for the plaintiffs and granted an injunction to restrain defendant from pulling down, removing or otherwise interfering with the addition to the house. From this decision the defendants now appealed.

Mr. Talbot, K.C., and the Hon. M. M. Macnaghton appeared in support of the appeal, and Mr. Hudson, K.C., and Mr. Inman for the respondents.

Lord Justice Pickford, in giving judgment, having stated the facts, said the case was an important one, because it affected a great number of by-laws throughout the country. He agreed that by-laws especially those of public bodies, should be approached from the point of view of upholding them if possible and should be benevolently interpreted, but still they must be reasonable. He, however, was of opinion there were grounds for contending that even as applied to the three-story additions the by-law was unreasonable. The difficulty arose in a great measure from the fact that the by-law was one of a set of model by-laws framed in view of the meaning of "new building" in the Public Health Act 1875, and now applied to the much-extended meaning of those words as defined by the Public Health Acts Amendment Act 1907. It did not seem to be material that the by-law was in existence at the time of the passing of the Act of 1907. As the local authority allowed it to continue without alteration after the passing of the Act it must be considered from the same point of view as if it had been made after the Act was passed. It seemed to have been most appropriate to the state of things existing under the Act of 1875. Under that Act an alteration of an existing building must be of such a nature that the result was to make the altered thing a new building, and it was possible that there might be an addition so complete and self-contained as to be itself a new building, though connected with one previously existing. In either case the by-law providing for ventilation space was quite reasonable, and if the new building from its position relatively to the building owner's boundary or to other buildings, or from any other cause, were such that it was not possible to comply with the requirements of the by-law, the building could not be built, except at the risk of its being demolished. Such an addition as that of the three rooms in the present case would not have been a new building under the Act, nor would the addition of the bay window or porch or servants' hall. But by Section 23 of the Act of 1907 every one of these additions was of itself a new building for the purposes of by-laws made under the Public Health Acts and therefore by-law 12 and by-laws 11, 13 and 57 applied to them, unless there was something in the Act or the by-laws to prevent such application. It was clear that in the case of a bay window or a porch the very nature of the addition made it impossible for the owner to comply with the requirements of the by-laws as to space at the rear and therefore there was, in effect, a prohibition against the making of any such additions. He thought that the by-law in question applied to all additions which were "new buildings," as defined by the Act of 1907, and as applied to such additions it was so unreasonable as to be *ultra vires*. He came to the conclusion with regret as the by-law was one which dealt with a very important subject relating to air-space and ventilation. It might be that the framers of the Act of 1907 did not consider the effect of the new definitions on the old by-law, or they might have relied upon local authorities making any necessary amendment in their by-laws. He saw no reason why the by-law should not be amended in such a way as to secure its objects.

The appeal would be dismissed with costs.

The other members of the Court concurred.

King's Bench Division, April 23.

(Before MR. JUSTICE BRAY and a Special Jury.)

Damage to Property by Electrical Installation. White and Others *v.* Mayor, &c., of Dover.

IN this action, Mr. Albert R. T. White, of Folkestone-street, Dover, the lessee, and Messrs. Jas. Chadwick Ward and Arthur R. Adams, the freeholders, sued the Mayor and Corporation of Dover for alleged damage to the premises leased by Mr. White in Folkestone-street, caused by laying in an electric installation.

Mr. Hohler, K.C., was counsel for the plaintiffs, and Mr. Barrington Ward appeared for the defendants.

The plaintiff, Mr. White, let No. 5, Folkestone-street to a tenant who is a boot repairer, and that tenant, at the end of 1916, was desirous of using the Corporation electric current for the purpose of his business, for working a repairing machine as well as for lighting. He applied to the Corporation, who are the owners of the electric power of the town, and they proceeded to lay the cable in the ordinary way. It was alleged by the plaintiffs that the work was done negligently, that the brickwork of the foundation had been so disturbed as to cause a subsequent subsidence and a bulging of the wall.

The defendants admitted having laid the pipes in accordance with plaintiff's request, but denied that there had been any negligence in carrying out the works, and said that the only interference with the brickwork, which was very old, had been the removal of a single brick, which had been pushed out by a man's hand in order to allow the pipe carrying the electrical wires to pass through into the house. The hole thus made, it was said, had been cemented up when the work was finished.

The plaintiff, Mr. White, gave evidence in support of his case.

Mr. Enoch Clarke, the tenant of 5, Folkestone-road, said that in 1916 he applied to the Corporation of Dover to put in a cable in order that he might use an electrical boot repairing machine. When the workmen were putting in the cable, he heard them using force upon the brickwork. They appeared to be driving a beading through the wall into the shop. Early in 1917 he noticed that the windows had begun to bulge, both inwards and outwards. He complained and the Corporation sent a man to put in cement or concrete. He noticed that the ground was very loose.

Mr. Joseph Jennings, an architect, who stated that he had been in practice at Canterbury for twenty years, said he was called in to examine the plaintiffs' premises, and he found that the brickwork had been disturbed.

In reply to his Lordship, witness said that the disturbance of the brickwork was the cause of the trouble he saw. If proper care had been taken in putting in the cable, the trouble would not have occurred. There was no necessity to touch the brick pier. He estimated the cost of putting the matter right at £100.

In cross-examination, witness said that the houses were probably 100 years old, but the particular part in question was only about forty years old.

Mr. Barrington Ward asked the witness whether he had seen the premises since "the little encounter with the Germans," and witness replied that he had not, as it was not easy to get to Dover now.

Mr. White was recalled and said they were now repairing the shop front which had been damaged by air raids, but they were not touching the "stony post" where the damage had occurred.

For the defence, Francis Thos. Ashfield, "ganger" on the electric lighting staff of the Corporation, was called. He stated he had been eighteen years engaged in laying electric cables; he had laid hundreds of services in Dover and had never before had any complaint as to his work. The brickwork of the house was very old and he had only to pull a brick out with his hands to make a hole through into the street, through which the pipe was passed.

Mr. Reginald C. Harper, Electrical Superintendent for the Dover Corporation, said that in February, 1917, he examined the premises and saw no sign of any interference with the brick pier. No part of it, so far as he could see, had been cut away. He saw no damage to the building apart from that caused by old age.

Mr. Wm. Beaston, of Westbrook-place, Dover, said that he had been in practice for thirty years as a surveyor and architect, and on April 21, 1917, he visited the premises in question and on examination he found no evidence of any movement whatever having taken place within recent years. He saw no sign of the brickwork having been cut away, as seen from the outside. The only cementing appeared to be round the service pipe.

Mr. S. E. Beaufoy, Deputy Mayor of Dover and builder, also gave evidence for the Corporation.

The jury in the result found, after an hour's consultation, for the defendants.

The Post Office Tube Railway.

Arbitrator's Award in Compensation Claim.

Mr. J. H. Oakley (of Messrs. Daniel Smith, Oakley & Garrard), as Arbitrator, has issued his award in the claim by the Great Eastern Railway Company for £33,393 compensation from the Postmaster-General by reason of the taking of so much of the sub-soil as is required for the Post Office Tube Railway at Liverpool-street Station, and for injurious affection to adjoining lands by the carrying out of such works.

The Arbitrator says:—"I award and determine that the sum of £6,884 be paid by the Postmaster-General to the Company for the acquisition of such easement or right of user of the sub-soil of the lands of the Great Eastern Railway, and that a further sum of £2,680 be paid by the Postmaster-General for or in respect of damage to be sustained by the Company, by reason of the severance of the said lands of the Company or otherwise injuriously affecting the said lands by the exercise by the Postmaster-General of the powers conferred on him by the Post Office (London Railway) Act, 1913, or the statutory provisions incorporated therewith."

The hearing of the claim was reported in the *Builder* of April 26.

OBITUARY.

Mr. J. Garry.

Mr. James Garry, of "The Grange," Stranton, who has died at the age of sixty-seven years, was a well-known resident of West Hartlepool. As an architect, he was responsible for a number of buildings in the Hartlepools. He was a member of the old Town Commission.

Mr. William Scott.

The death at Villa Les Cyeas, Cannes, is announced of Mr. William Scott, A.R.I.B.A., hon. member of the Royal Academy of Venice, and first officer of the Order of the Crown of Italy. He was author of "The Riviera" and "Rock Villages," both of which were illustrated with his water colours and etchings. Mr. Scott, who was a Soane Medallist R.I.B.A., was a distinguished etcher.

Major W. Jane, R.E.

Major William Jane, R.E., who died on April 24 of wounds received in action, was formerly chief assistant to the Borough Engineer and Surveyor at Reading, but afterwards entered into practice as an architect and surveyor at Reading and Weston-super-Mare. While at Weston, he joined the Wessex Engineers, and at the outbreak of war was recalled from the United States, where he was on business. He was gazetted to a captaincy in the Royal Engineers, went to France and was wounded. On recovery, he went to France again and was promoted major. In the autumn of 1917, he was invalided back and given a post in England, but went to the front again last February.

THE HOUSING QUESTION.

Houses for After the War.

A Sub-Committee of the Housing and Town-Planning Committee of Edinburgh Town Council have had under consideration a circular letter from the Local Government Board as to the provision of houses for the working classes after the war. A draft representation to the Local Government Board with reference to various points in the circular was submitted and approved, and it was indicated that the Committee would be glad to have an opportunity of supplementing the representation if the Board would be good enough to give them an interview. In connection with the points raised it may be mentioned that the Local Government Board suggest the erection of twelve houses to the acre, whereas the Scottish National Housing and Town-planning Council suggest that there should be twenty-four houses to the acre.

Housing Scheme for Stourbridge.

The Special Committee on Housing appointed by Stourbridge Town Council presented at the last meeting a scheme for the development of the Brook-street site, and the erection thereon of 192 houses. The type of house recommended by the committee contains three bedrooms, while two of the types have a parlour, and two types are without a parlour. It is proposed to erect them in pairs, fours and sixes. Councillor L. J. Cook (chairman, Sanitary Committee) proposed as an amendment that 100 houses be suggested, to be arranged to secure the shape of the roads as in the report, leaving gaps to be filled in in the future. The amendment was carried by 8 votes to 7.

The Local Government Board and Housing.

Mr. Hayes Fisher explained to the House of Commons last week the Local Government Board's plans for dealing with the housing problem after the war, when it is said that 300,000 new houses will be required. The idea is to enter into a working partnership with the local authorities, which will select the sites and then frame estimates of the probable cost of erecting houses and the probable rents to be received over the space of seven years. A deficit is certain, and of this the Treasury will bear 75 per cent., leaving the local authorities to find the remaining 25 per cent., which will not in the main entail more than a penny rate. The idea is to build houses with a living room, scullery, parlour, and three bedrooms.

Municipal Housing, Derby.

At a recent meeting of the Joint Committee of the Derby Trades Council and the Derby Labour party the question of housing was under discussion, and the following opinions were arrived at:—That, in view of the serious shortage of houses in and round Derby, the Town Council should at once take advantage of the offers made by the Government, through its Reconstruction Committee, to prepare a scheme of housing in conjunction with the town-planning scheme, setting aside certain areas for residential purposes only. That houses should be built on such areas on the following lines:—(1) Not more than ten houses to the acre. (2) Not more than two houses in a block. (3) Every house should be set back from the roadway and have garden space at front and back. (4) Every house should be provided with bath and hot and cold water service. (5) That wherever possible electric light and heat should be provided. (6) That all land abutting on new main roads should be reserved for residential purposes. It is the further opinion of the committee that by means of the proposed State aid for municipal building, garden suburbs could be built round Derby, with houses suitable in every convenience and moderate in price, but that unless public opinion is brought to bear upon the question the opportunity will be allowed to pass.

Book Received.

GAUGES AT A GLANCE. By Thomas Taylor. (London: E. & F. N. Spon, Ltd. 6s. net.)

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	11	11	11	11	11	10½	10	8	8	8
Accrington	11½	11½	1/-	1/-	1/-	10	9½	8	8	8
Altrincham	1/2	1/2	1/3	1/2	1/-	1/4	1/3	11	11	10
Ashton-under-Lyne	1/3	1/3	1/2½	1/2	1/2	1/4	1/3	10½	10½	11½
Barnsley	1/0½	1/0½	11½	1/-	1/-	1/1	9½	9½	9½	9½
Barrow-in-Furness	1/2½	1/2½	1/2½	1/2½	1/2½	1,2½	1/2	1/-	1/-	1/-
Barry	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Bath	11½	11½	11½	11	11	11½	9	9	9	9
Bedford	11	11	11	11	11	11	9	9	9	9½
Birkenhead	1/2	1/2	1/3	1/2	1/2	1/3	1/2	10½	11½	11½
Birmingham	1/1½§	1/1½§	1/1½§	1/1½§	1/1½§	1/4	1/0§	10½§	10½§	10½§
Bishop Auckland	11	11	11	11	1/2	11	10	8	8	8½
Blackburn	1/1	1/1½	1/1½	11	1/0½	1/1½	1/-	8½	9	9
Blackpool	1/-	1/2	1/2	10½	8½	1/-	10½	8	8	8
Bolton	1/2	1/2	1/3	1/2	1/2	1/4	1/3	9	9½	10
Bournemouth	11	11	11	11	11	11	10½	8½	8½	8½
Bradford	1/2½	1/2½	1/2	1/2½	1/2½	1/3	1/1	1/-	1/-	1/-
Bridgwater	10	10	10	10	10	10	8½	7	7	7
Brighton	1/-	1/-	1/-	1/1½	1/-	1/-	10½	9½	9½	9½
Bristol	1/2½	1/2½	1/2½	1/2½	—	1/2½	1/1½	11½	11½	11½
Burnley	1/0½	1/0½	1/0½	1/-	1/-	1/2	1/-	8½	8½	8½
Burton-on-Trent	11	11	11	11	11	11	10½	8½	8½	8½
Bury	1/2	1/2	1/2	1/3	1/1	1/4	1/3	10	10½	10½
Cambridge	11	10½	10½	10½	10½	11	9	7½	7½	7½
Cardiff	1/1½	1/1½	1/1½	1/1½	1/1½	1/2½	1/0½	10½	10½	10½
Chatham	10½	11	11	11	11	11	9½	8	8	8
Chelmsford	8	7½	8½	9	—	7½	6½	5	5	6½
Cheltenham	9½	9½	9½	9½	—	9½	9½	6½*	6½*	6½
Chester	11½	1/-	1/-	1/-	1/-	1/-	11½	7½	8½	8½
Chesterfield	1/-	1/2	1/-	11	10	11	1/-	8-8½	8-8½	8-8½
Colchester	10	10½	10½	11	10	11	8½	7½	7½	7½
Coventry	1/2	1/2	1/2½	1/2	1/2	1/2½	1/1	11½	11½	1/0½
Crewe	10	10	10	10	10	1/2	1/0½	7	7	7½
Darlington	1/1	1/1½	1/1½	1/1½	1/2	1/-	1/-	10½	10½	10½
Derby	1/-	1/-	1/-	1/-	1/-	11½	11½	9	9	9½
Doncaster	10½	1/-	1/-	10½	10½	10	9½	9½	9½	9½
Dudley	9½	1/2	1/2	10	10	9½	8½	11	11	11½
Durham	10½	10½	10½	10½	10½	9½	9	7½	7½	7½
East Glam. and Mon. Valleys	10	10	10	10	—	—	9	7	7	7
Exeter	10	10	10	10	10	10	9	8	8	8
Folkestone	1/-	1/-	1/-	1/-	1/-	1/-	10	9	9	9
Gloucester	10½	11	11	10½	10½	11	10	8½	8½	8½
Grantham	9½	10	9½	9½	10	8½	8	8	7½	8
Grays	—	1/-	1/-	—	—	1/-	10½	—	10	10
Grimsby	1/-	1/-	1/-	1/-	1/-	1/-	10	10	10	10
Great Yarmouth	10	10	10	10	10	10	8½	7	7	7
Halifax	1/1½	1/1½	1/1½	1/1½	1'1½	1/2	1/1	10½	10½	10½
Harrogate	10½	9½	1/-	9	8	1/-	9½	7½	7½	7½
Hartlepools	1/2	1/2	1/2	1/2	1/2	10½	1/-	11	11	11
Hastings	10	10	10	10	10	10	8½	7	7	7
Hereford	10	10	10	10	10	10	9	7½	7½	7½
Huddersfield	1/2½	1/2½	1/3	1/-	1/-	1/2	11	11½	11½	11½
Hull	1/3	1/3	1/3	1/3	1/3	1/3	1/1½	1/1	1/1	1/1
Ipswich	1/-	1/-	1/-	1/0½	1/-	1/0½	10½	9½	9½	9½
Lancaster	1/-	1/-	1/-	1/-	1/-	1/-	1/-	10	10	10
Leamington Spa	10½	10½	10½	10½	10½	10½	9½	7½	7½	7½
Leeds	1/2½	1/2½	1/2	1/2	1/2	1/3	11½	11½	11½	1/-
Leicester	1/2	1/2	1/2	1/2	1/2	1/2	11½	11½	11½	11½
Lincoln	10½	1/-	10½	10½	10½	10½	10	9½	9½	9½
Liverpool	1/2	1/2	1/2	1/2	1/1½	1/3	1/1½	10½	10½	10½
Llanelly	1/1	1/1	1/1	1/1	1/1	1/3	11½	10½	10½	10½
London	1/3½	1/3½	1/3½	1/3½	—	1/3½	1/0½	11½	11½	11½
Loughborough	10	10	10½	10	10	10	9	8½	8½	9½
Luton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	11	11	11
Maidstone	11	11	11	10	10	11	10	8	8	8
Manchester	1/3	1/3	1/3	1/3	1/2	1/4	1/3	11	11½	11½
Mansfield	11	11	10½	11	11	10½	11	8	8	8
Merthyr Tydfil	11	11	11	11	11	11	10	8½	8½	8½
Middlesbrough	1/2	1/2	1/2	1/2	1/2	1/2	1/-	11	11	11
Newcastle-on-Tyne	1/2	1/2	1/2	1/2	1/2	1/3	1/1	11	11	11
Newport, Mon.	11½	11½	11½	11½	11½	1/2	10½	8½	8½	8½
Northampton	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Norwich	10½	10½	10½	10½	10½	10½	9½	8	8	8
Nottingham	1/2½	1/2½	1/2½	1/2½	1/2½	1/3	1/1½	1/0½	1/0½	1/0½
Oldham	1/2	1/3	1/3	1/2	1/-	1/4	1/3	10½	10½	11
Oxford	11	10½	10½	10½	10½	10½	9½	8	8	8
Plymouth	1/2*	1/2*	1/2*	1/2*	1/2*	1/2*	8½*	12	11	11
Pontypridd	11	11	11	11	11	11	10	8	8	8
Portsmouth	1/-	1/-	1/-	1/-	1/-	11	10	9½	9½	9½
Preston	1/-	1/0½	1/-	1/-	1/-	1/-	1/-	8½	9	9
Reading	10½	10½	10½	11	10½	10½	9	7½*	7½*	7½*
Rochdale	1/3	1/3	1/2	1/1	1/1	1/4	1/3	11½	11½	1/-
Rochester	10½	11	11	11	11	11	9½	8	8	8
Rugby	1/-	1/-	1/-	1/0½	1/1	1/-	11	9	9	10
St. Albans	10	10	10	10	10	10	9	8	8	8½
St. Helen's	1/2	1/2	1/2	1/2	1/2	1/2	1/1	8	8	8
Scarborough	1/-	1/-	11	1/-	9½	9½	8½	9	9	9
Sheffield	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11½	11½	11½
Shrewsbury	8½	11½	1/3	9½	—	8½	7	8½	8½	8½
Southampton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Southend-on-Sea	10	10	10	10	P'cework	10	9	8	8	8
Southport	1/2	1/1	1/2	1/-	1/-	1/1	1/1	10	10	10
South Shields	1/2	1/2	1/2	1/2	1/2	1/1*	1/1	11	11	11
Stockport	1/3	1/2½	1/2½	1/-	1/1½	1/4	1/3	10	10	10
Stockton-on-Tees	1/2	1/2	1/2	1/2	1/2	10½	1/-	11	11	11
Stoke-on-Trent	11½	11½	11½	11½	—	10½	10½	8½	8½	8½
Stroud	9½	9½	9½	9½	9½	9½	9	7½	7½	7½
Sunderland	1/2	1/2	1/2	1/2	1/2	1/1½	1/1	11	11	11
Swansea	1/1½	1/1½	1/1½	1/1½	1/1½	1/2	1/1	10½	10½	10½
Taunton	10	10	10	10	10	10	9	7½	7½	7½
Torquay	10	10	10	10	10	10	10	8	8	8
Wakefield	10	1/-	11½	1/-	1/-	1/1	1/-	9½	9½	9½
Walsall	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/-	11½	11½	11½
Warrington	1/3	1/3½	1/3	1/3½	1/3½	1/3	1/2	11	11½	11½
West Bromwich	11	11	10½	10½	—	10	9	8*	8	8
Wigan	1/2½	1/2½	1/2½	1/2½	1/0½	1/2½	1/3	10½	11	11
Windsor	1/-	1/-	1/-	1/-	1/-	1/-	10½	9	9	9
Wolverhampton	1/-§	1/-§	1/-§	1/-§	1/-§	1/-§	10½§	9§	9§	9§
Worcester	9½	1/-	1/-	1/-	1/-	1/-	10	10½	10½	10½
York	1/-	1/-	1/-	1/-	1/-	10½	9½	9½	9½	9½

The Masons' rate given is for bankers; fixers usually ½d. per hour extra.

* War bonus of 2s. per week granted. † War bonus of 3s. per week granted. ‡ War bonus of 3s. 6d. per week granted. ‖ War bonus of 6s. per week granted. § 1½d. per hour extra for men engaged on munition work.

[The above rates are exclusive of 12½ per cent. increase granted by the Committee of Production.—ED.]

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BATH.—Plans passed by T.C. :—Sanitary alterations 8, North-parade; alterations, 2, Henrietta Villas and 32, Livingstone-road.

BELFAST.—The Electricity Committee has applied to the Ministry of Munitions for a building licence and priority certificate for the steel work for the new electricity station.

BILLERICAY.—The U.D.C. has decided to erect about 150 working-class houses.

BIRMINGHAM.—The L.G.B. has given its consent to the Corporation borrowing £69,387 for the improvement of Hockley Brook and main sewer.

CARMARTHEN.—The R.D.C. has decided to adopt a housing scheme under the Small Dwellings Acquisition Act, by which a local authority is empowered to lend money to persons desirous of erecting their own houses,

CARNARVON.—Plan passed : Shed, 5, Edward-street for Mr. T. L. Jones.

CHESHUNT.—The Herts C.C. is asking the Public Works Loan Board to advance £6,000 to enable it to purchase a site from the Cheshunt U.D.C. and to erect thereon an isolation hospital.

CHICHESTER.—The City Council is considering in committee a proposal to erect 50 houses for the working-class.

COVENTRY.—Plans passed by T.C. :—Office, stores, &c., Catherine-street, for the executors of the late George Storer; addition to premises, 12, Cross-cheaping, for Messrs Mountford & Jones; time office, Dover-street, for Mr. J. F. Buckingham; washhouse, store shed, &c., Radford Works, Daimler-road, for the Daimler Co., Ltd.; foundry, Queen Victoria-road, for the Rover Co., Ltd.; alterations to shops, 21 and 21A, Broadgate, for Messrs. Kendall & Sons; 11 houses, Kingsland-avenue, for Mr. H. Davis; motor shed, Styvechale-avenue, for Mr. W. H. Satchwell; lavatories, Holmsdale-road, for the Lockhurst-lane Co-operative Society, Ltd.; two houses, Queensland-avenue, for Messrs. Osborne & Co.; four houses, Shackleton-road, for Mr. J. G. Hewlett.

DEWSBURY.—Plans passed by T.C. :—Sanitary improvements, Scout Hill, for Messrs. Ashworth & Co.; additions to sheds, Cut End Mills, Savile Town, for Messrs. Oxley & Sharp.—One of the medical officers of the L.G.B. is to visit the town with respect to the selection of a site for a sanatorium.

DUDLEY.—Plans passed by T.C. :—Motor-house and stabling, Camden Bank-road, Netherton, for Mr. J. Smith; bakehouse, 28, Hill-street, Netherton, for Mr. F. H. Shaw; piggeries and storehouses, Oakham-road, Dudley, for Mr. J. H. Bean.

ENFIELD.—The late Mr. H. C. Bowles, of Enfield, has left £2,000 to build a new chancel to Jesus Church, Forty Hill.

GREENWICH.—Drainage plans passed by B.C. : At premises of the Delta Metal Co., Tunnel-avenue; at Siemens Club, Charlton-road, for Messrs. G. Harling & Son; at "Inglenook," Blackheath-road, for Messrs. Stone & Drew; at 127, Church-lane, for Mr. Joseph Hocking.—The Council proposes acquiring a plot of land on the eastern side of Blackwall-lane on which to erect a building of infant welfare work estimated to cost £500.

HACKNEY.—Sanitary plans passed by B.C. :—Build drain three-chamber drying kiln at Sherry's timber wharf and mills, Lee Navigation Cut, for Messrs. Henry Knight & Son; sanitary accommodation at Albert Works; sanitary accommodation, Daubeney-road, for Mr. H. J. Smith.

HAMMERSMITH.—Drainage plans passed by B.C. : At Hythe-road, for the British Emaillite Co., Ltd.; at Manor Hall, Great Church-lane; at 4, Southerton-road, for Mr. G. Cross; at 4, The Grove, for Mr. C. H. Isaacs.

HERTFORDSHIRE.—The Herts Standing Joint Committee has decided to carry out works of repair and painting to the police-stations at Royston and Watford, and the session room at Hatfield.

HITCHEN.—Mrs. E. G. J. Clarkson has left £1,000 to the vicar of St. Mary's, Hitchen, towards a fund for the erection of a church in Lancaster-road.

JOHANNESBURG.—The Municipal Council proposes spending £5,500 on public wash-houses at Newtown and £2,253 on additional shed accommodation at the Produce Market.

KENDAL.—Plan passed :—Addition, Globe Inn, Market-place, Mr. J. Hutton (architect), for Messrs. Yates & Jackson.

LANCASTER.—The T.C. has authorized an expenditure of £3,000 for the extension of the gas works.

* See also our list of Competitions, Contracts, &c., page 292.

LEEDS.—The Middleton Estate and Colliery Co., Ltd., who practically own the whole of the village, have offered to sell to the Corporation 400 acres of their estate of 800 acres for building development, the idea being that some 4,000 houses should be built there and laid out on town-planning lines. The Electricity Committee proposes purchasing 1,971 sq. yds. of land adjoining the electricity works, for the extension of the generating station.

LEICESTER.—The Corporation is considering the purchase of 71 acres of land with frontages to Uppingham-road and Humberstone-drive for a housing scheme.

LEYTON.—Plans passed by U.D.C. :—Alterations, St. Margaret's Vicarage, Woodhouse-road, for Mr. A. Webb ; additions, 608, High-road, for Mr. G. J. Evans.

LURGAN.—The R.D.C. has decided to undertake the repairing of the road along the margin of Lough Neagh in Derrytagh, which will include the building of a well. The estimated cost is £1,200.

NORTHAMPTON.—Plans passed by T.C. :—Conveniences at factory, St. Giles'-street, for Messrs. Crick & Co. ; reconstruction of drainage, The Drapery, for Messrs. Adnitt Bros. ; leather store, Wellingborough-road, for Messrs. Manfield & Sons ; conveniences and drain to premises, corner of Grafton-street and Bell Barn-street, for Mr. W. F. Slade.

SHEFFIELD.—Plans passed by T.C. :—Additions, Red Hill, for Messrs. J. & J. Beal ; additions, Malinda-street, for Messrs. W. Spencer & Sons, Ltd. ; sanitary improvements, Oakbrook and Westwood-roads, for Mr. W. H. Torr ; alterations, Brightside-lane, for Messrs. T. Firth & Sons, Ltd. ; boundary wall, Bright-street, for the Brightside Foundry and Engineering Co., Ltd. ; additions, Meadow-street, for Messrs. A. Ashton & Sons ; transformer house, Lockhouse-lane, for the Carbrook Steel Works, Ltd. ; chipping shed, Chippingham-street, for Messrs. Dunford & Elliott, Ltd. ; two steel chimneys, Stevenson-road, for Sir Joseph Jonas, Colver & Co., Ltd. ; messroom and offices, Carlisle-street East, for Messrs. John Brown & Co., Ltd. ; band saw shop, Woodbine and Newhall-roads, for Messrs. Sanderson Bros. & Newbould, Ltd. ; sanitary additions, Attercliffe-common, for Messrs. Vickers, Ltd. ; timber-drying kiln, Staniforth-road, for Messrs. Cravens, Ltd. ; gas meter supports, Saville-street East, for Messrs. T. Firth & Sons, Ltd. ; additions, Liverpool-street, for Messrs. Hadfields, Ltd. ; additions, Moorfields, for Mr. J. Fearnehough ; conservatory addition, Brincliffe Edge-road, for Mr. W. Waterhouse ; women's canteen, Staniforth-road, for Messrs. Cravens, Ltd.

SHOEBURYNESS.—The Surveyor presented a plan for the possible sites of forty-eight houses agreed upon by the Council. The Council has agreed to fix a frontage of 40 ft., and the Clerk has been directed to communicate with the owners of the land.

SOUTH SHIELDS.—Plans passed :—Alterations and additions to premises, 95 and 97, John Clay-street, Mr. Carruthers, for Mr. H. Louis. It is stated that Mr. A. Anderson, the mayor, has offered Cleadon Park to the Corporation at the price he recently purchased it. The estate, which comprises 200 acres, will probably be laid out for building.

STOURBRIDGE.—The Special Committee on Housing has presented a scheme for the development of the Brook-street site, and the erection thereon of 192 houses. The type of house recommended by the committee contains three bedrooms, while two of the types have a parlour, and two types are without a parlour. It is proposed to erect them in pairs, fours, and sixes.

YORK.—Plan passed by T.C. :—Alterations, Lawrence-street, for the York Equitable Industrial Society.

Competitions, Contracts, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number. Contracts, —; Competitions, —; Public Appointments, —; Auction Sales, —. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender ; that a fair wages clause shall be observed ; that no allowance will be made for tenders ; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

BUILDING AND PAINTING.

MAY 11.—**Carlisle.**—PAINTING.—For painting at the Children's Home, for the Board of Guardians. Particulars of Mr. H. G. Armstrong, Architect, Carlisle.

MAY 13.—**Glasgow and Edinburgh.**—PAINTING.—For painting roof of the Central Station, the bridges carrying the railway over the River Clyde and adjoining streets at Glasgow, and the roof of Princes-street Station, Edinburgh, for the Caledonian Railway Co. Specifications of the Company's Engineer, Buchanan-street Station, Glasgow, and the District Engineer, Princes-street Station, Edinburgh. Deposit £2 2s.

MAY 17.—**Edinburgh.**—RE-ERECTION.—The School Board invite tenders for the removal of the wood and iron building at present in the playground of James Clark School, St. Leonard's-lane, and for its re-erection at Gorgie Special School, along with certain minor alterations at the latter school. Schedules at the Board Offices.

MAY 18.—**Miskin.**—PAINTING.—For painting work at Bethel Church, Specifications of Mr. D. J. Davies, "Maesgwyn," Miskin, Mountain Ash.

MAY 20.—**Annan.**—ALTERATIONS.—For various trades required in construction of new cells at and for alterations and repairs at the County Police Station. Specifications of Mr. J. M. Bowie, Architect, Buccleuch-street, Dumfries.

MAY 20.—**Attleborough.**—PAINTING.—For cleaning and painting exterior of main block of infirmary. Particulars of Mr. F. Robinson, Clerk to Guardians, Walton, Norfolk.

NO DATE.—**Sheffield.**—DEMOLITION.—Tenders invited for the purchase and removal of old cottages adjoining St. Mary's-lane, Ecclesfield. Particulars of Mr. F. Crawshaw, 65, Market-place, Sheffield.

FURNITURE, MATERIALS, etc.

MAY 11.—**Hoylake.**—STORES.—Supply to the U.D.C. of concrete flags, macadam, cement, sewer-pipes, &c. Specifications of the Surveyor, Town Hall, Hoylake.

MAY 11.—**Margam.**—STORES.—Supply of road material and various stores to the Margam U.D.C. Specifications of Mr. J. Cox, Surveyor, Port Talbot.

MAY 15.—**London.**—FURNITURE.—Commissioners of His Majesty's Works, &c., are prepared to receive tenders for the supply of : (a) tables, (b) dressing chests. Forms of tender of the Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W. 1.

ENGINEERING, IRON AND STEEL.

MAY 18.—**Sheerness.**—PIPES, &c.—Supply to the Sheerness Urban District Council of (*a*) cast-iron pipes and special castings, (*b*) cast and mild-steel steam pipes and galvanised mild-steel and wrought-iron pipes, (*c*) two boiler feed pumps, including erection. Specifications, &c., of Mr. F. W. S. Stanton, Civil Engineer, 3, Victoria-street, Westminster, S.W. 1. Deposit £1 1s.

MAY 22.—**Bristol.**—PONTOON.—The Docks Committee invite tenders for the construction and delivery at the Avonmouth Docks of a ferro-concrete pontoon for carrying a pneumatic grain elevator. Specification, &c., of Mr. T. A. Peace, Engineer, Docks Engineer's Office, Avonmouth Docks, Bristol. Deposit, £5.

ROAD, SANITARY, AND WATER WORKS.

MAY 13.—**Sleaford.**—SEWERS.—For laying 36 lined yards of sewer in Leadenham, for the Sleaford R.D.C. Particulars of Mr. W. B. Marsden, Council Offices, Sleaford.

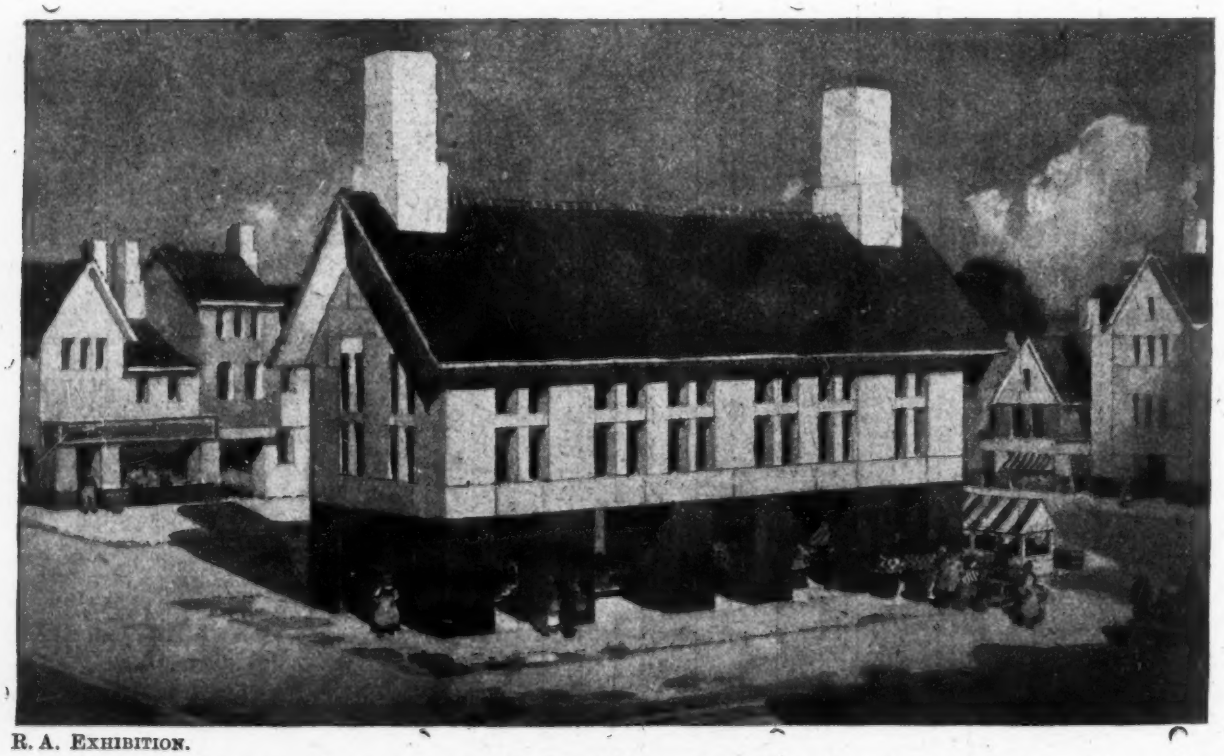
MAY 16.—**Birmingham.**—CULVERT, &c.—The Public Works Committee invite tenders for the work in connection with the deepening of a length of about 1,950 yds. of the Hockley Brook, between Plume-street and Whitehouse-street, together with a length of about 320 yds. of 6 ft. by 6 ft. brick and concrete culvert in Chester-street, storm overflow chamber, and other incidental works. Specification, &c., of Mr. Henry E. Stilgoe, City Engineer, Council House, Birmingham. Deposit £2.

MAY 18.—**Reigate.**—ROAD MATERIALS, &c.—For the supply of road materials and Portland cement to the Corporation. Particulars of Mr. F. T. Clayton, Borough Surveyor, Municipal Buildings, Reigate.

NO DATE.—**Warrington.**—SANITARY PAILS, &c.—The Sanitary Works Committee of Warrington invite tenders for 500 steel sanitary pails, also 500 steel ash-bins. Specification of Mr. James J. A. Parfitt, Cleansing Superintendent, Central Sanitary Depot, Howley, Warrington.

Commercial Motor Users.

The General Committee of the Commercial Motor Users' Association has unanimously decided to nominate Colonel R. E. D. Crompton, O.B., who has been Chairman of the Association for nearly fifteen years, as its first President. A general meeting of members will be held in London on the 31st inst. to inaugurate the President and Vice-Presidents, and Colonel Crompton has consented to deliver a Presidential address, entitled "The Future of Heavy Motor Transport." The new Chairman of the Committee will be Mr. E. S. Shrapnell-Smith, who has been Honorary Treasurer of the Association since its formation in 1903. He will have the assistance of Mr. W. G. Lobjoit, J.P. (Chairman of the Executive Committee of the Middlesex County War Agricultural Committee) as Deputy Chairman, and of Mr. Walter Wolsey, Jun. (Managing Director of Thomas Tilling, Ltd.) as an additional Vice-Chairman.



R. A. EXHIBITION.

Design showing the use of Lott's Toy Bricks. MR. ARNOLD MITCHELL, Architect.

PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry—Ed.]

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1,000 Alongside, in River Thames.	£ s. d.
Best Stocks	2 10 0
Picked Stocks for Facings	3 5 0

Per 1000, Delivered at Railway Depot, London.	£ s. d.		£ s. d.
Flettons	2 3 0	Best Blue Pressed Staffordshire	6 10 0
Best Fareham Red	4 0 0	Do. Bullnose	6 15 0
Best Red Pressed Ruabon Facing	6 0 0	Best Stourbridge Fire bricks	9 5 0
GLAZED BRICKS—		D'ble Str'tch'rs	20 7 6
Best White, Ivory, and Salt Glazed Stretchers	14 17 6	D'ble Headers	17 7 6
Headers	14 7 6	One Side and two Ends	21 7 6
Quoins, Bullnose and 4½in. Flats	18 7 6	Two Sides and one End	22 17 6
		Splays and Squints	19 17 6

Glazed bricks priced at so much each, 25 per cent. advance on list.

Second Quality, £1 per 1,000 less than best.

	s. d.		
Thames Ballast	11 0	per yard,	delivered
Pit Sand	13 0		
Thames Sand	13 6	,, ,,	2 miles
Best Washed Sand	14 0	,, ,,	radius
¼ in. Shingle for Ferro-Concrete	12 0	,, ,,	Paddington.

Per ton, delivered.	£ s. d.		£ s. d.
Best Portland Cement	2 18 0	..	3 1 0

Do. £2 11s. 0d. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 1 13 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 3d. each and credited at 2s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L.& S.W.R., South Lambeth Station, G.W.R., and Mileage Station G.W.R., per ft. cube	2 10½
Do. do. delivered on road waggons at above stations, per ft. cube	2 11½

White basebed, 2d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average.*

RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.	s. d.		s. d.
Ancaster in blocks	2 0	Closeburn Red	2 2
Beer in blocks	1 7½	Freestone	2 2
Grinshill in blocks	2 4	Red & White Mansfield random block	2 9
Darley Dale in blocks	2 5	Yellow Magnesian Limestone do. do	3 3

YORK STONE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
Scappled random blocks ..... Per Ft. Cube	3 11
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	3 0
6 in. rubbed two sides, ditto ..... ,,	3 4
3 in. sawn two sides slabs (random sizes) ,,	1 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	0 10
1½ in. to 2 in. ditto, ditto ..... ,,	0 8½

HARD YORK—

Delivered at any Goods Station London.	s. d.
Scappled random blocks ..... Per Ft. Cube	3 6
6 in. sawn two sides landing to sizes (under 40ft. super.) ..... Per Ft. Super	2 8
6 in. rubbed two sides ditto ..... ,,	2 4
3 in. sawn two sides slabs (random sizes) ,,	1 3
2 in. self-faced random flags ..... ,,	0 5½

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	3 15 0
Ditto hand-made ditto	3 17 6
Ornamental ditto	4 0 0
Hip and valley tiles (per dozen)	0 9 0

SLATES.

		Per 1,000 of 1,200 f.o.r. London. £ s. d.
Best Blue Bangor Slates.	20 by 10	16 10 0
,, "quality" ,,	16 by 8	8 10 0
First quality ,,	20 by 10	16 0 0
,, ,,	16 by 8	8 2 6
Best Blue Portmadoc	20 by 10	16 10 0
,, ,,	16 by 8	8 10 0
First quality ,,	20 by 10	15 5 0
,, ,,	16 by 8	7 12 6

WOOD.

BEST BUILDING REDWOOD. Imported sizes.

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn

Deals: 4 in. by 12 in., 4 in. by 11 in., 3 in. by 11 in., 4 in. by 9 in., and 2 in. by 11 in.	
in. by 9 in., 2½ in. by 9 in., and 2 in. by 9 in.	

WOOD (*Continued*).

BEST BUILDING REDWOOD.

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

Battens: 2 in., 2½ in., and 3 in. by 8 in.	
2 in., 2½ in., and 3 in. by 7 in.	
2 in., 2½ in., and 3 in. by 6 in.	
Scantlings: 2 in. by 3 in., 2 in. by 3½ in., 2 in. by 4 in., 2 in. by 4½ in., 3 in. by 4 in., and 3 in. by 4½ in.	
Boards: 1 in., 1½ in., and 1½ in. by 6 in. and 7 in.	
¾ in.	
Seconds	
Sawn pitch pine logs (about 35 cu. ft. average	
Do. 6 in. to 10 in.	
Best Pitch Pine Deals	
Under 2 in. thick	

JOINERS' WOOD

White Sea First Quality Red: 4 in. by 11 in.	
3 in. by 11 in., and 2 in. by 11 in.	
4 in. by 9 in.	
3 in. by 9 in., and 2½ in. by 9 in.	
3 in. by 11 in. boards	
7 in. and 8 in. battens	
7 in. and 8 in. boards	
Archangel White Deals—Best 3 in. by 9 in. and 10 in. and 11 in.	
Seconds, do.	
U.S. Battens	
Prepared Floorings and Matchings. Seconds Swedish Red and equal—1¼ in. by 6½ in. planed and shot	
1¼ in. by 6½ in. planed and matched	
1 in. by 6½ in. planed and shot	
1 in. by 6½ in. planed and matched	
¾ in. by 6½ in. planed, matched, and beaded, or V jointed	
1 in. by 6½ in. do.	
Columbian or Oregon Pine, best quality	
Yellow Pine—First regular sizes	
Oddments	
Seconds, regular sizes	
Oddments	
Kauri Pine—Planks per ft. cube	

Dry Wainscot Oak, per ft. super, as inch	0	2	0	..	0	2 6
¾ in. do. do.	0	1	6	..	0	2 0
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0	2	6	..	0	3 0
Cuba, Mahogany	0	2	6	..	0	3 6
Dry Walnut, American, per ft. super, as inch	0	2	0	..	0	3 0
French, "Italian," Walnut	0	3	0	..	0	5 0
Teak, per load (Rangoon or Moulmein)	60	0	0		85	0 0
Do. do. (Java)						
American Whitewood planks, per ft. cube	1	4	0	..	1	10 0
Glue, per cwt.	6	0	0	..	6	15 0

METALS.

JOISTS, GIRDERS, &c.

Prices controlled by the Ministry of Munitions.

Rolled Steel Joists, ordinary sections, basis price	
Plain Compound Girders, ordinary sections	
Plain Compound Stanchions	
Angles, Tees, and Channels, ordinary sections	
Flitch Plates	
Cast Iron Columns and Stanchions, plain ordinary patterns	

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Sizes up to and including 2 in. Tubes.	Fittings.	Sizes 2½ in. to 6 in. Tubes.	Fittings.
Gas	36½	40	41½	42½
Water	31½	37½	36½	40
Steam	26½	35	31½	37½
Galvanised Gas	13½	32½	17½	35
,, Water	5	30	8½	32½
,, Steam	1½ on	27	2½	30

L.C.C. SOIL PIPES— London Prices ex works.

Pipes cu'ated.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6 fts.	3 4 ..	2 6 .. 3 0
2½ in. ,,	3 10 ..	2 9 .. 3 9
3 in. ,,	4 9 ..	3 0 .. 4 6
3½ in. ,,	5 3 ..	3 9 .. 5 3
4 in. ,,	5 9 ..	4 3 .. 6 0

RAIN-WATER PIPES, &c.

Pipe.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6fts. plain	2 5 ..	1 6 .. 1 11
2½ in. ,, ,,	2 6½ ..	1 9 .. 2 4
3 in. ,, ,,	3 0 ..	2 1 .. 3 0
3½ in. ,, ,,	3 7 ..	2 5 .. 3 5
4 in. ,, ,,	3 11 ..	2 11 .. 4 2

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices. 4 in., 7s. 0d. .. 5 in., 8s. 6d. .. 6 in., 10s. 0d.

Per ton in London.	£ s. d.		£ s. d.
IRON—			
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars—good merchant quality	16 10 0	..	17 10 0
Staffordshire "Marked Bars"	18 0 0	..	19 0 0
Mild Steel Bars	21 0 0	..	21 10 0

METALS (*Continued*).

Per ton in London.	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	19 10 0	..	20 0 0
Hoop Iron, basis price	20 10 0	..	21 10 0
,, ,, Galvanised	33 0 0	..	—
Sheet Iron Black—			
Ordinary sizes to 20 g.	23 0 0	..	23 10 0
,, ,, 24 g.	24 0 0	..	24 10 0
,, ,, 26 g.	25 0 0	..	26 0 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	34 0 0	..	—
Ordinary sizes to 22 g. and 24 g.	34 0 0	..	34 10 0
Ordinary sizes to 26 g.	36 0 0	..	36 10 0
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	35 10 0	..	—
,, ,, 22 g. and 24 g.	36 0 0	..	—
Ordinary sizes to 26 g.	39 0 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	33 0 0	..	Nominal prices only.
Ordinary sizes, 22 g. and 24 g.	33 10 0	..	
Ordinary sizes, 26 g.	32 10 0	..	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	29 0 0	..	30 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.

Delivered in London.	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	38 10 0	..	—
Pipe in coils	39 0 0	..	—
Soil Pipe	42 0 0	..	—
Compo pipe	42 0 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra. Orders for over 1 cwt. Sheet Lead or Pipe, or 28 lbs. Solder should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N.2 (E)], Hotel Victoria, S.W. Smaller quantities than the above can be obtained by making a written declaration to the Manufacturer or Merchant that the metal is wanted for urgent renewals or repairs, and giving the name of the job for which it is required.

COPPER—					
Strong Sheet	per lb.	0	2 3	..	—
Thin ,,	,,	0	2 4	..	—
Copper nails	,,	0	2 3	..	—
Copper wire	,,	0	2 4	..	—
TIN—English Ingots	,,	0	3 3	..	—
SOLDER—Plumbers'	,,	0	1 8	..	—
Tinmen's	,,	0	2 2	..	—
Blowpipe	,,	0	2 4	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft		Per Ft.
15 oz. fourths	7d	32 oz. fourths	10d.
,, thirds	7½d.	,, thirds	11d.
21 ,, fourths	7½d	Fluted, Obscured and	
,, thirds	8½d.	Enamelled Sheet,	
26 ,, fourths	8½d.	15 oz.	7½d.
,, thirds	9½d.	21 ,,	8½d.

Extra price according to size and subatance for squares cut from stock, and only small quantities can be supplied without an A Certificate.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	5d.
⅜ Rough rolled and rough cast plate	5½d.
½ Rough rolled and rough cast plate	6d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	7½d.
Rolled Sheet	5½d.
White Rolled Cathedral	5½d.
Tinted do.	6d.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil in pipes ..... per gallon	0 5 8
,, ,, ,, in barrels .... ,,	0 5 9
,, ,, ,, in drums .... ,,	0 6 0
Boiled ,, ,, in barrels .... ,,	0 6 0
,, ,, ,, in drums .... ,,	0 6 3

Orders for these oils must be accompanied by a certificate from the Ministry of Food (Oil and Fat Department), St. Stephen's House, Westminster, S.W.1.

Turpentine in barrels	,,	0 11 3
in drums	,,	0 11 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		54 0 0

GENUINE WHITE LEAD PAINT—

"Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	74 10 0
Red Lead, Dry (packages extra)	per ton	42 0 0

Orders for White and Red Lead and any Paint containing Lead must be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty	per cwt.	0 17 6
Filocol	per cwt.	0 15 0

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak	0 12 0
Pale Copal Oak	0 14 0
Superfine Pale Elastic Oak	0 16 0
Fine Extra Hard Church Oak	0 14 0
Superfine Hard-drying Oak, for seats of Churches	0 18 0
Fine Elastic Carriage	0 18 0
Superfine Pale Elastic Carriage	0 18 0
Fine Pale Maple	0 14 0
Finest Pale Durable Copal	1 0 6
Extra Pale French Oil	1 4 0
Eggshell Flatting	1 0 0
White Pale Enamel	1 6 0
Extra Pale Paper	0 16 0
Best Japan Gold Size	0 12 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 12 0
Brunswick Black	0 10 0
Berlin Black	0 16 0
Knotting	1 10 0
French and Brush Polish	1 0 0

SCOTTISH BUILDING TRADE.

In February, 1918, an agreement was concluded between certain employers' and operatives' associations connected with the building trade in Scotland for the adjustment of wages during the war. The agreement provides for the suspension of the previously existing agreements and practices under which applications for general advances in wages have been dealt with and for the substitution of a special procedure by which the Committee on Production may be called upon to consider at intervals of four months—namely, in February, June, and October—what general alteration in wages, if any, is warranted by the abnormal conditions then existing and due to the war. The first hearing under the agreement took place before the Committee on April 22, at Glasgow, when an application for an advance of 6d. an hour was considered. By their award of April 29, the Committee have decided that workmen who since the outbreak of war, have received general advances amounting to 3¾d. an hour or upwards, but less than 5d. an hour, shall receive such further increase as shall make the advances up to 5d. above pre-war rates. In cases in which the general advances have amounted to less than 3¾d. an hour, the workmen concerned are to receive a further increase of 1¼d. an hour. The award takes effect as on the first full pay in April, 1918.

TRADE NEWS.

The directors of Bell's United Asbestos Co., Ltd., have resolved, in view of the audited accounts to December 31, 1917, and after providing for Excess Profits Duty, to recommend to the shareholders at the general meeting to be held on May 23, the payment of a balance dividend of 1s. 6d. per share on the ordinary shares of the company, and a bonus of 6d. per share, which, with the interim dividend paid in October last, makes a total distribution of 15 per cent. for the year. The amount to be placed to reserve is £15,000. The amount to be carried forward is £8,984

We understand that the North British Rubber Company's Great Portland-street premises have been chosen as a home for a further Government extension, and the present occupants have to find a new location at very short notice. To acquire new London premises at a moment's notice has presented the company with serious difficulties, as it is now by no means easy to find a building large enough in itself to house the staff maintained at Clincher House and the adjoining Tennyson House. We learn that it has been found impossible to obtain such a building, and under the circumstances the company have had to acquire two separate buildings, one for the London Pneumatic Tyre Department and the other for the Export Department. The existing premises at East-road, City-road, N., have not been interfered with. The new address of the London Tyre Department will be 111–113, Great Titchfield-street, Oxford-street, W., while the Export Department, Advertising and General Manager's London Office, will be situated at 257–259, Oxford-street (close to Oxford Circus).

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*

ARMAGH.—For new swimming bath at Folly Basins, for the Armagh Corporation :—

*O'Hare & Mallon, Armagh ..	£311 14 8
A. C. Simpson	337 18 5

BATH.—The Corporation has appointed the following jobbing tradesmen for one year, subject to an obligation to furnish a tender for any work whenever required by the Surveyor of Corporate Property, viz. :—
G. Morris & Son, 9, Manvers-street, Carpenters.
C. Newman, 7, Margaret's-hill, Mason.
Watts Bros., 13, London-street, Painters.
Ruddick Bros., Pulteney-road, Plumbers.

GLASGOW.—For supplies to the Baths Committee of the Corporation :—
*Blacklock & Macarthur, Ltd.—Paints and varnish, at 5 per cent. increase on present rates.

HERTFORDSHIRE.—For the tar-spraying of certain main roads, for the Hertfordshire County Council :—
*Taroads Syndicate, Ltd.—For 1 gallon to 6 sq. yds., 1½d. per yard ; for 1 gallon per 8 sq. yds., 1¼d. per yard.

LEYTON.—Accepted by the Urban District Council :—
*Buxton Lime Firms Co.—Lime at 35s. per ton, subject to variations based on price of coal and rates of wages.
*J. H. Turney & Lissey—Ground grey lime, at 44s. per ton.

LONDON.—For supply of granite and chippings for twelve months to the Greenwich B.C. :—
*Brookes, Ltd.—2 in., £1 1s. 8d. per ton ; 1½ in., £1 2s. 2d. ; rough chippings, £1 0s. 11d. ; ½ and ¾ in. chippings, £1 1s. 2d. per ton.

NORTHAMPTON.—For painting of Midsummer Meadow Bathing Place for the Corporation :—
* W. H. Foster £179 10

SHEFFIELD.—For construction of concrete and brick tank, &c., at Neepsend Generating Station, for the Corporation :—
*Edmund Taylor, Ltd. £500

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PATENTS.

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114,321.—J. L. Manson : Calculating rules.
114,347.—A. H. Gillies : Ships.
114,379.—W. B. Lane : Frame saws and cross-cut saws.
114,386.—A. G. Fenn and Guthrie & Co. : Locks.
114,387.—R. Kirk : Drawers for filing drawings sheets, of paper, linen, or the like.
114,391.—F. Badger : Means for securing nuts on bolts.

* All these Applications are now in the stage in which opposition to the grant of Patents upon them may be made.

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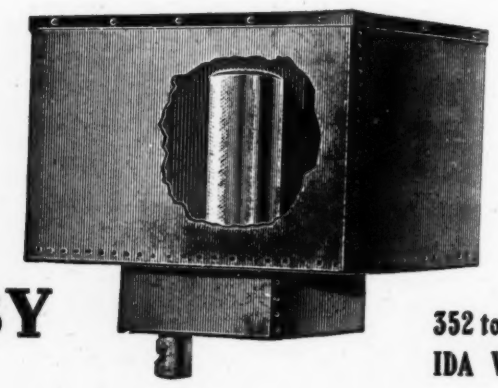

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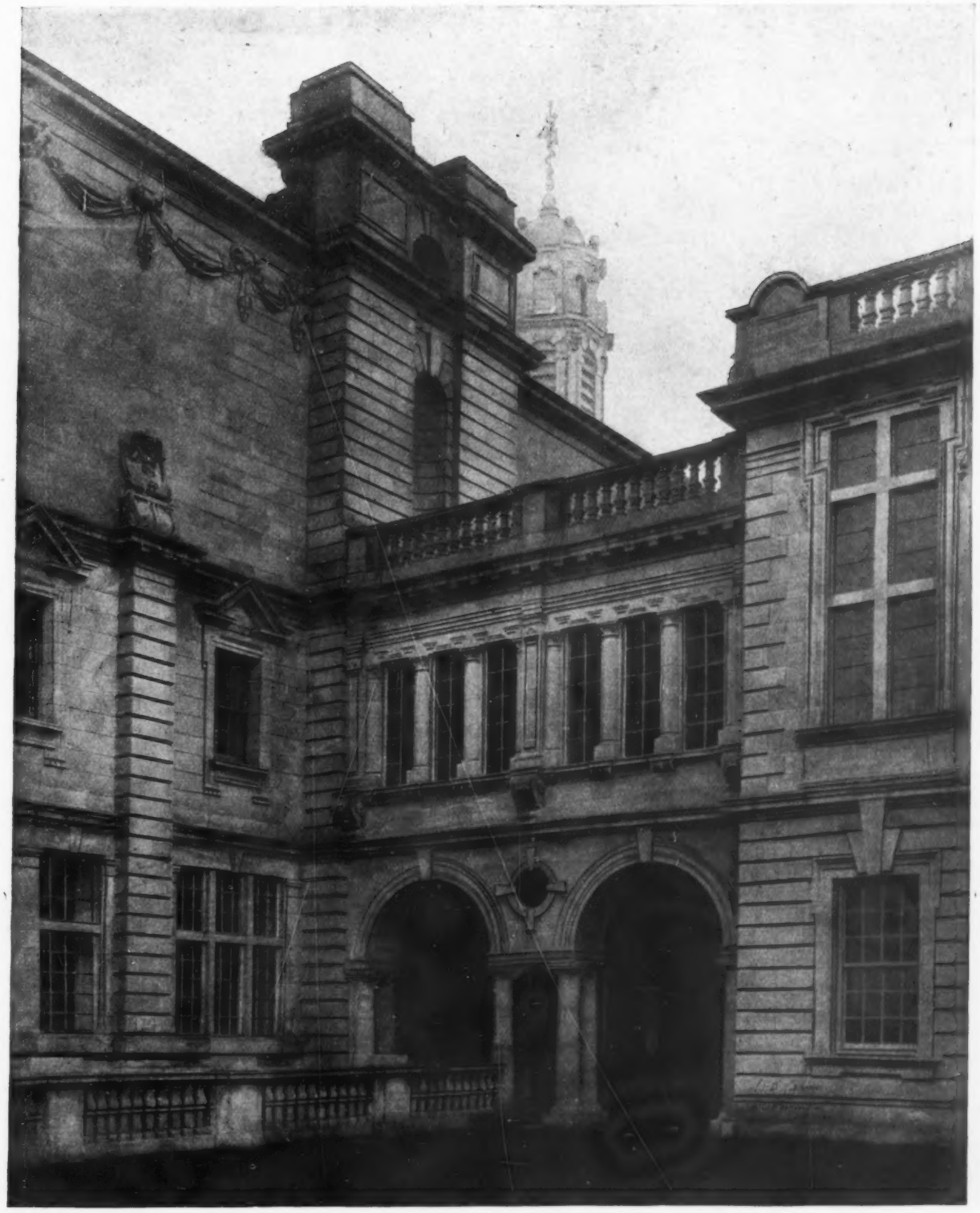

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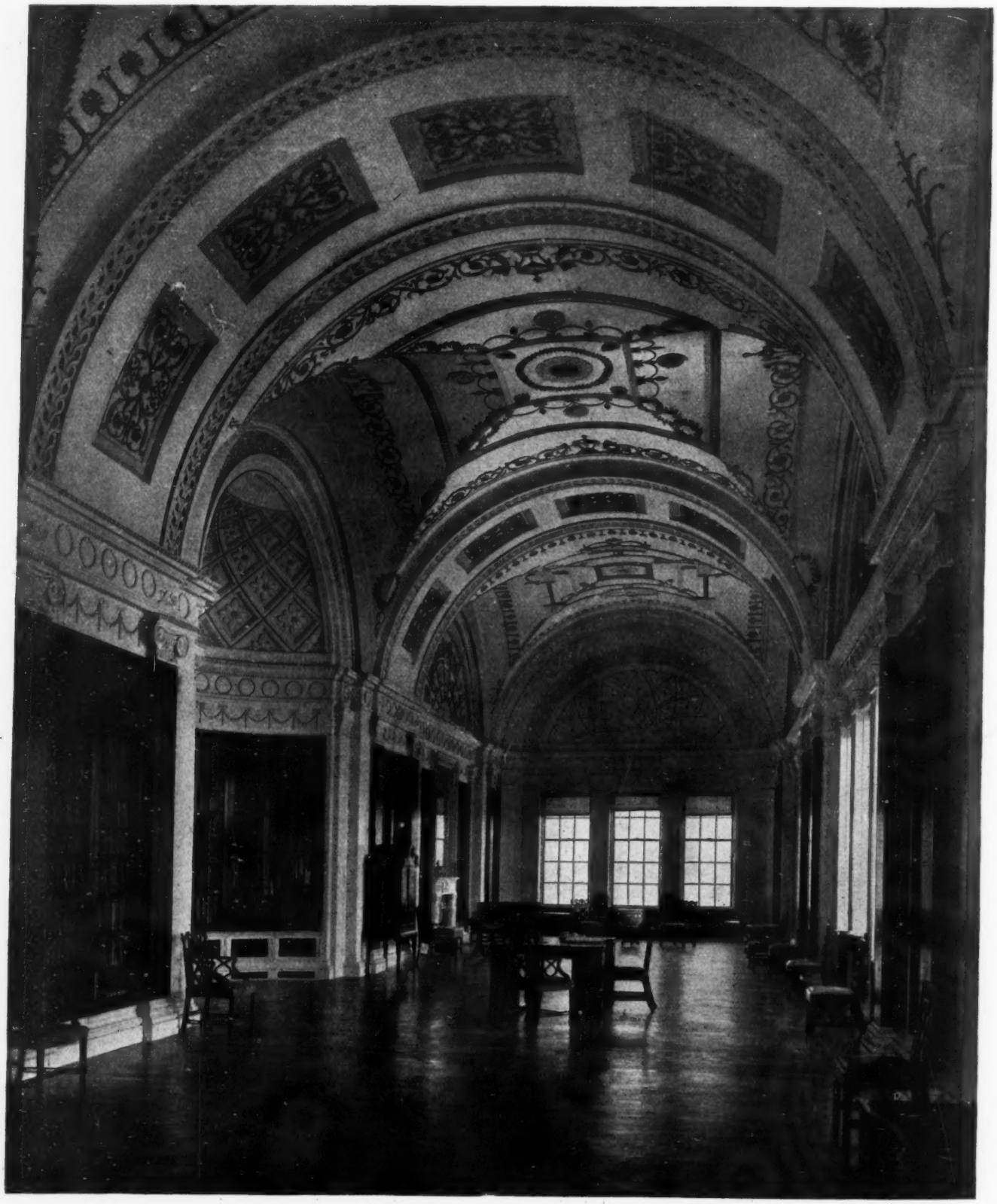
MR. W. D. CAROE, M.A., F.R.I.B.A., ARCHITECT.



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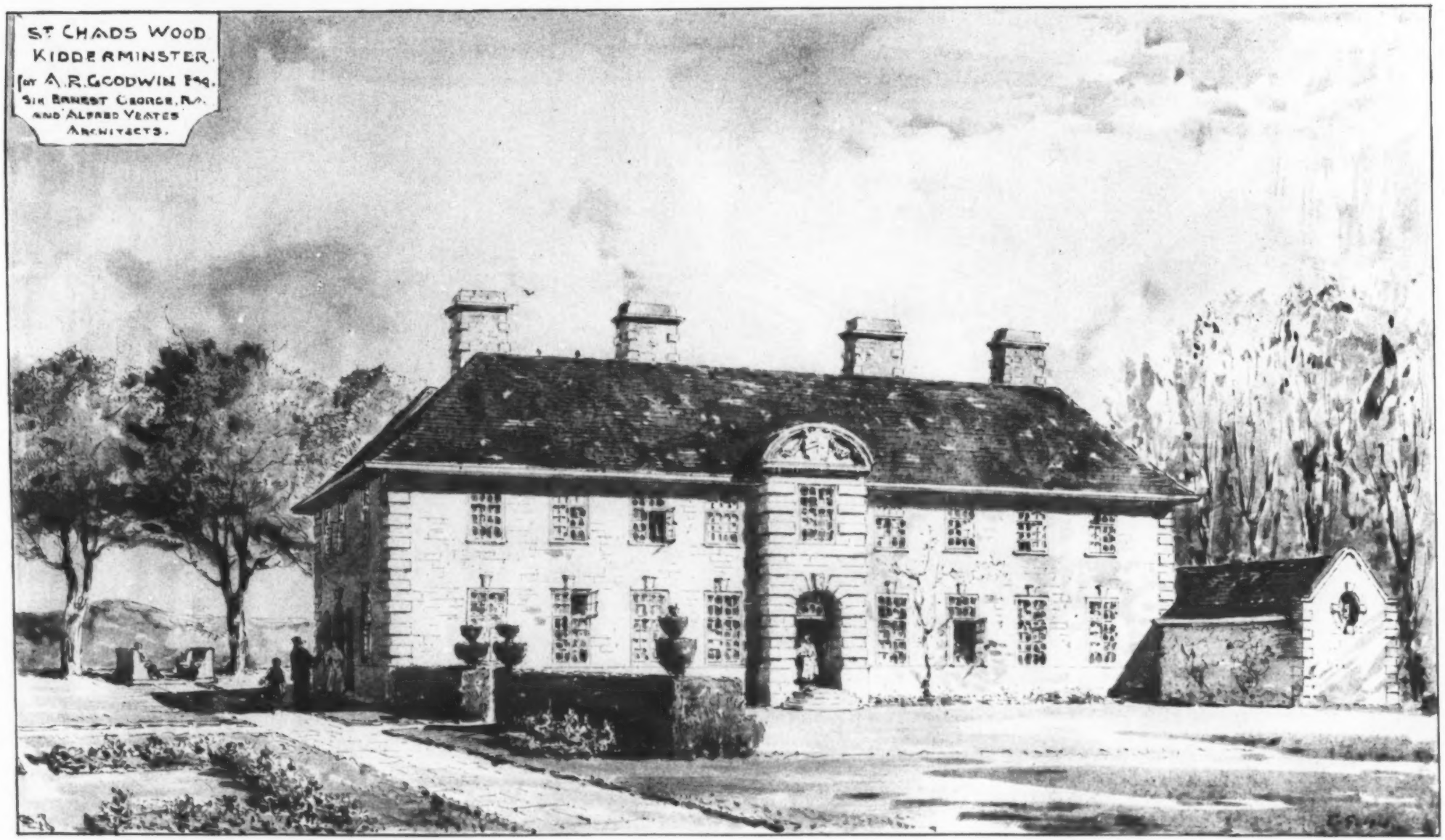

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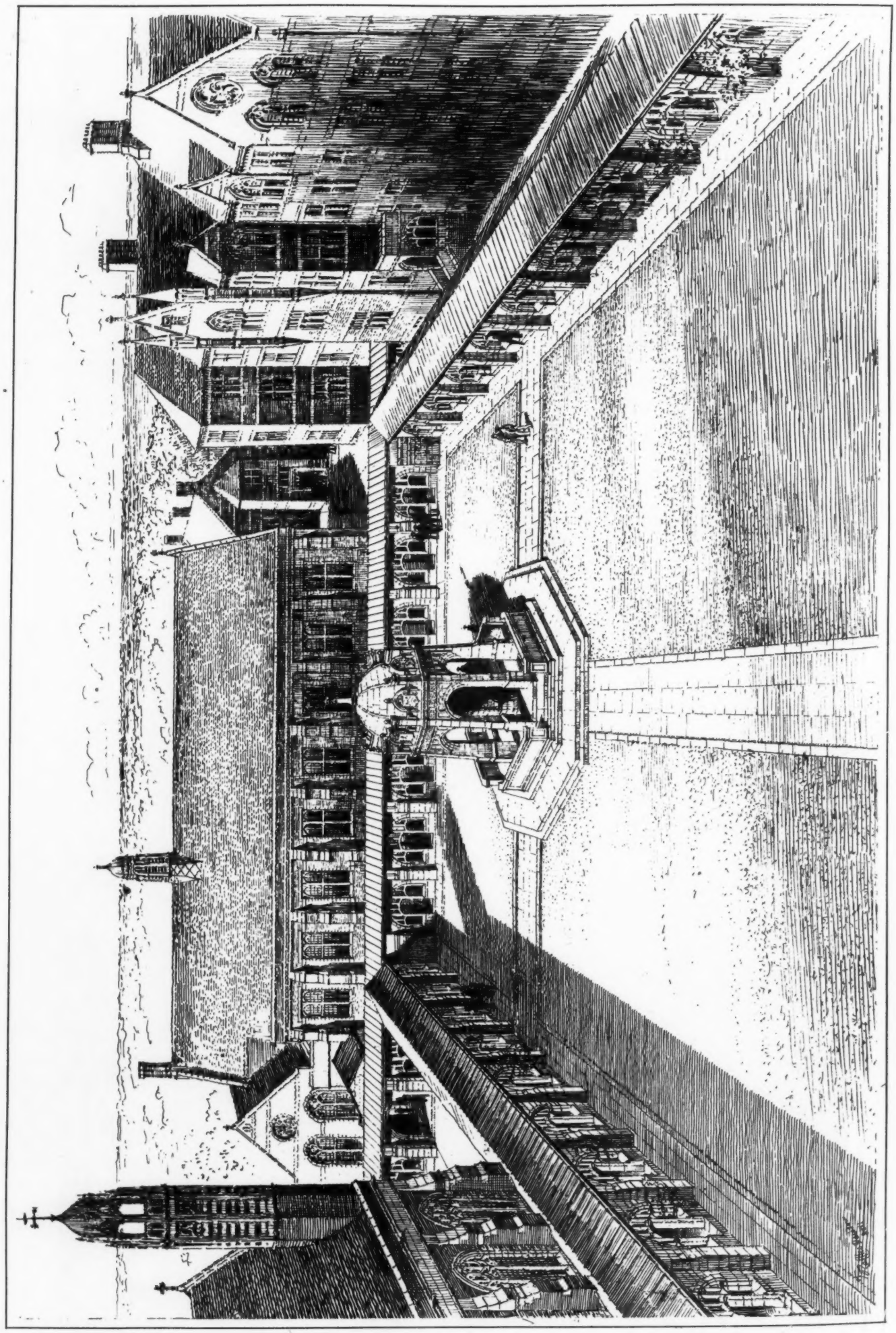

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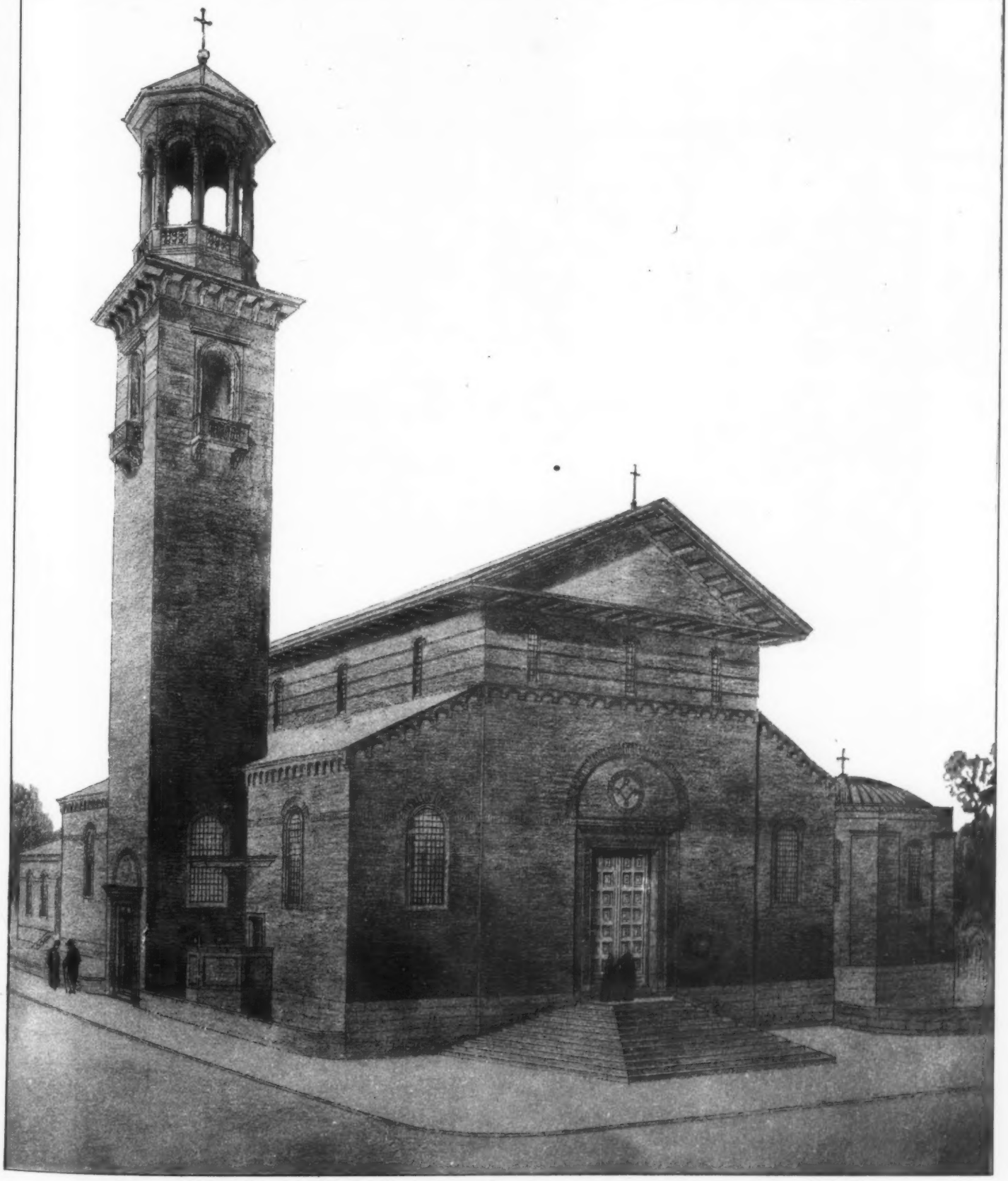

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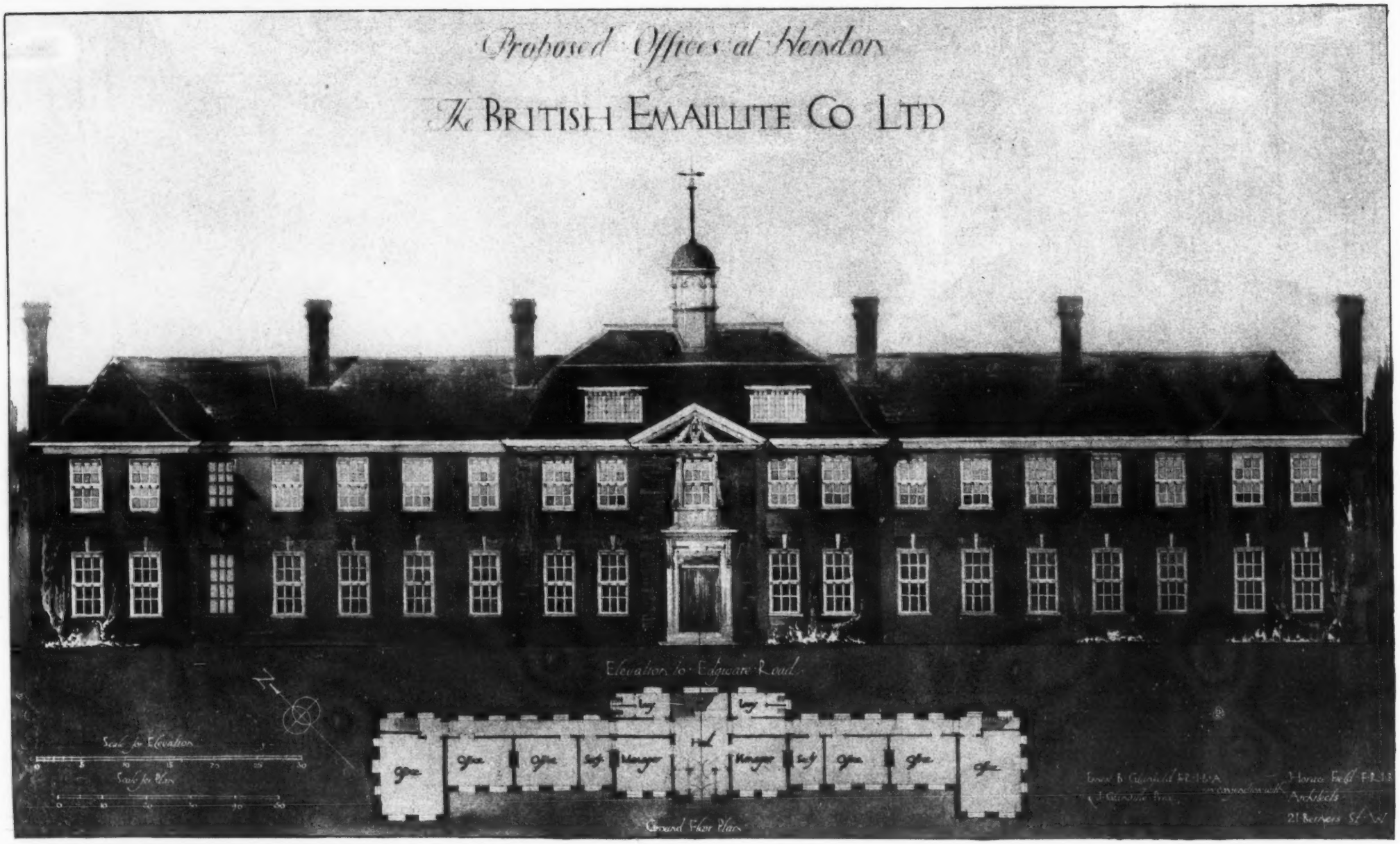
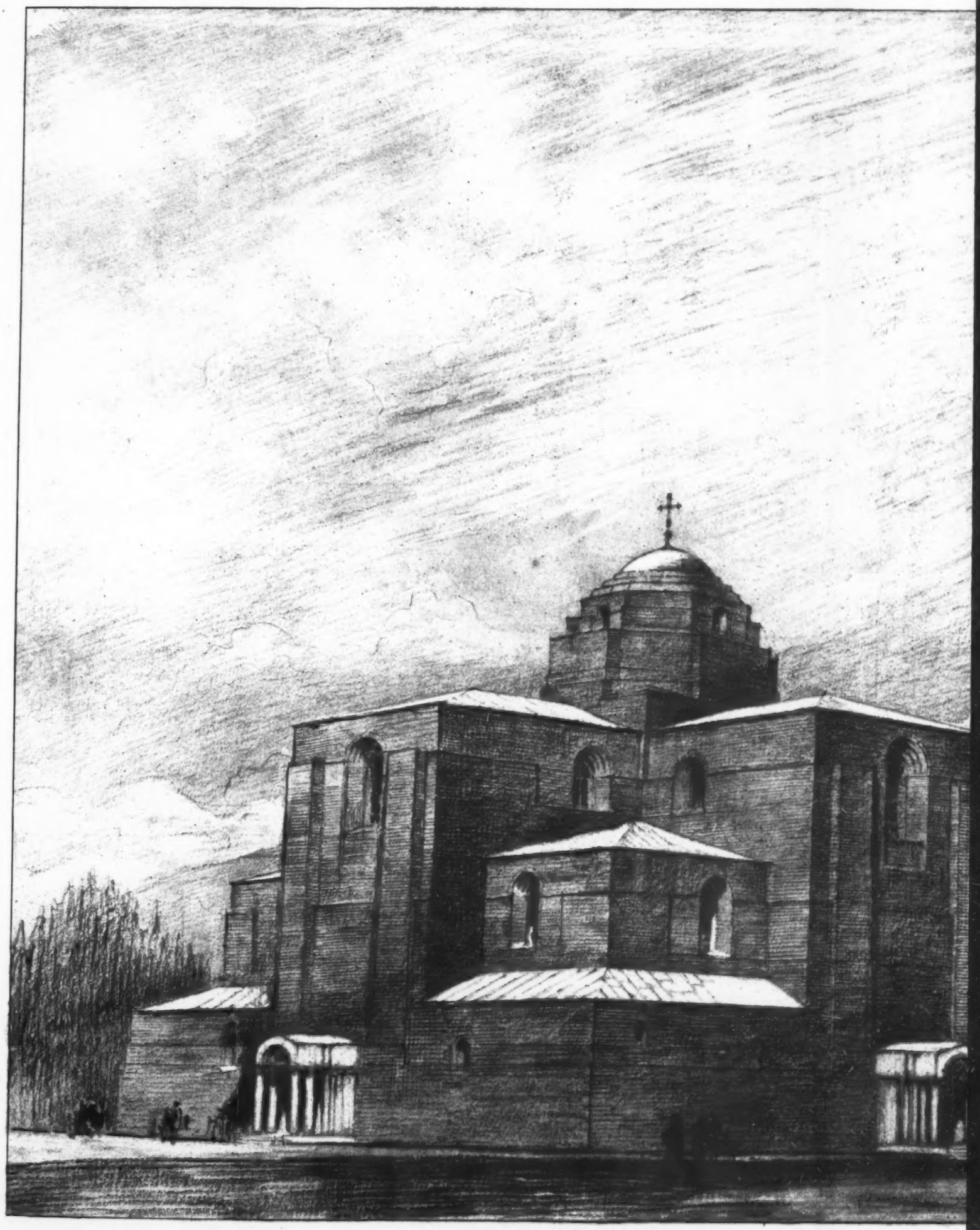


PROPOSED OFFICES, HENDON.—MESSRS. E. R. GLANFIELD, J. G. PRICE AND HORACE FIELD, ARCHITECTS.



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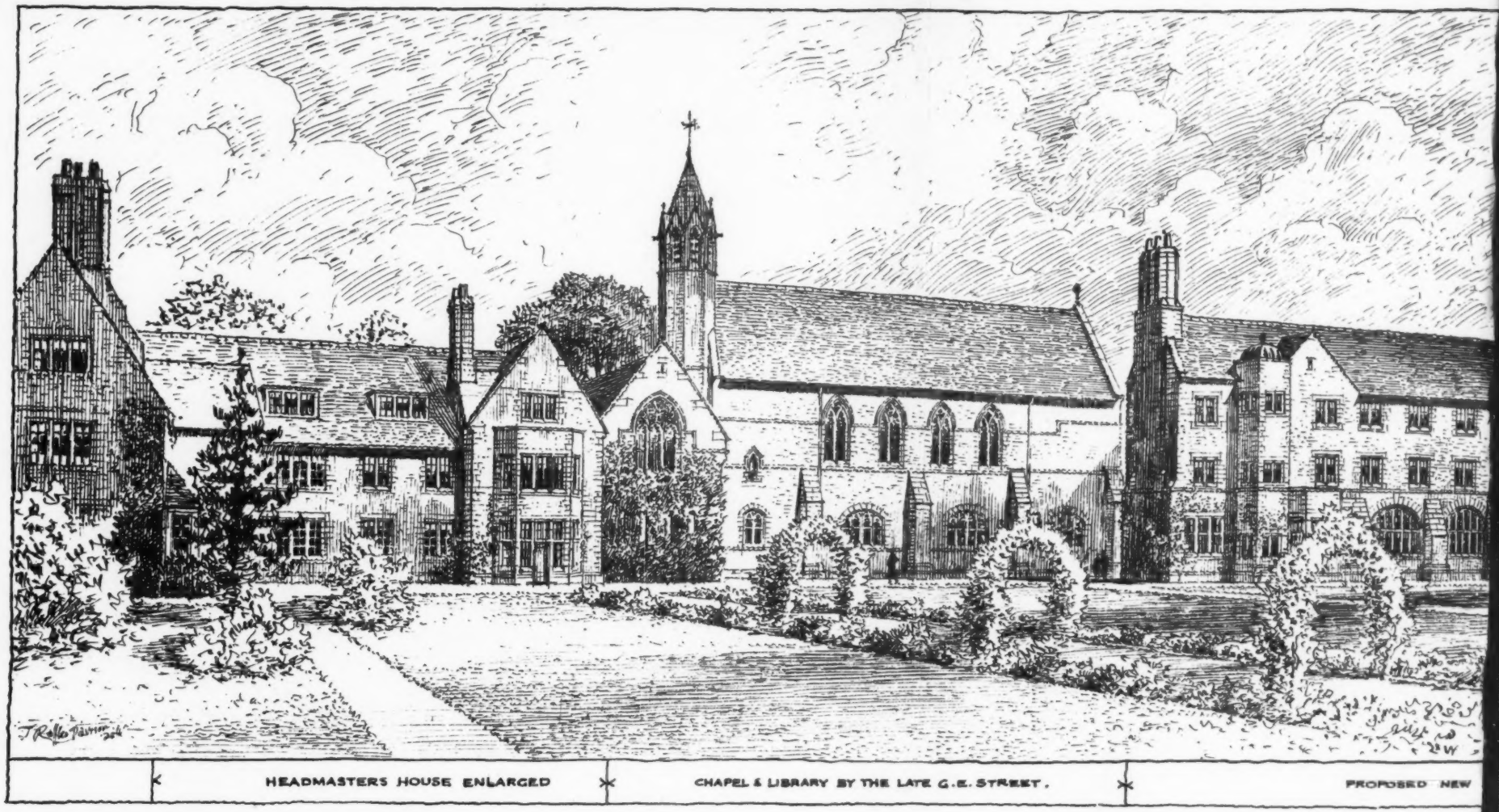

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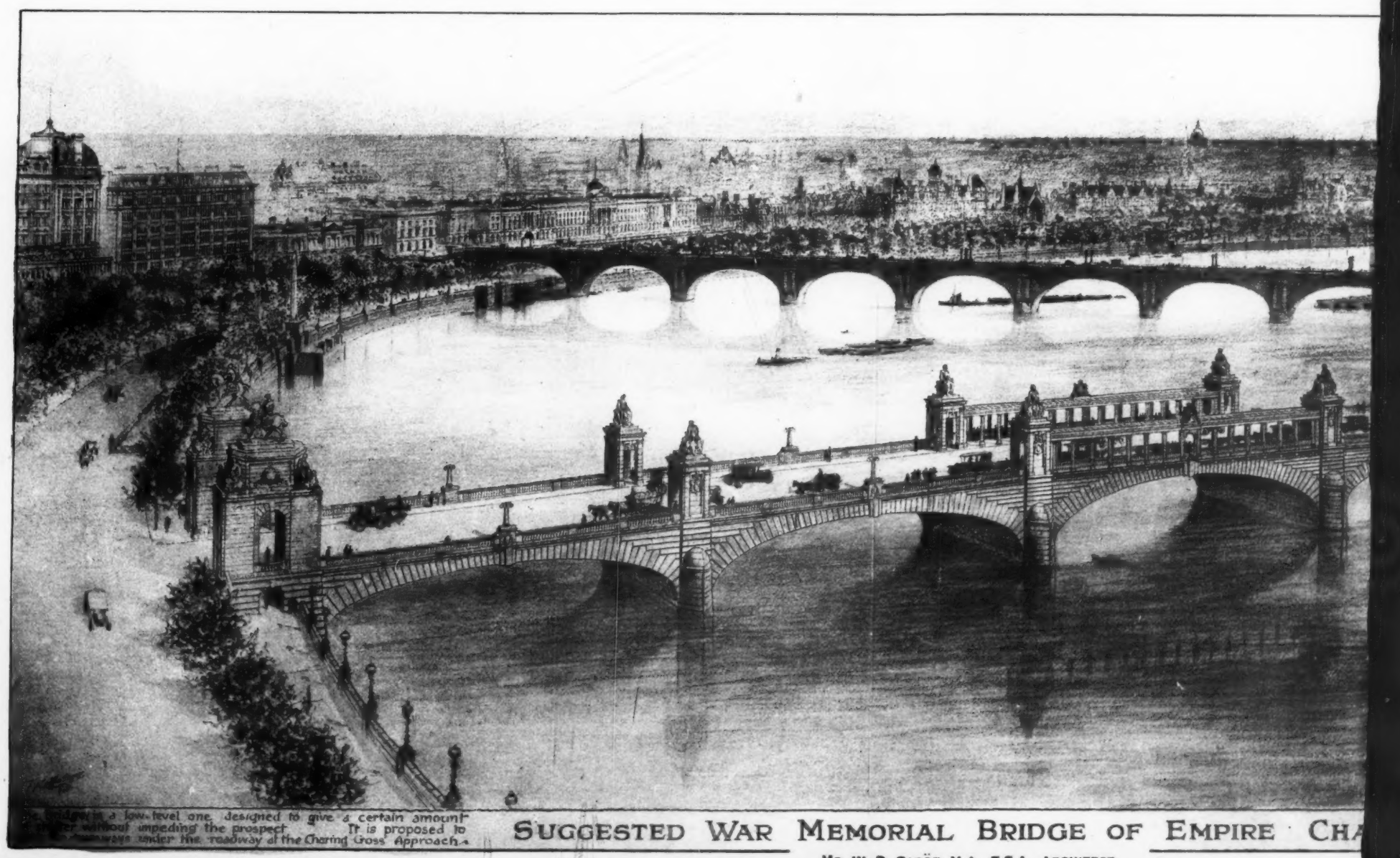
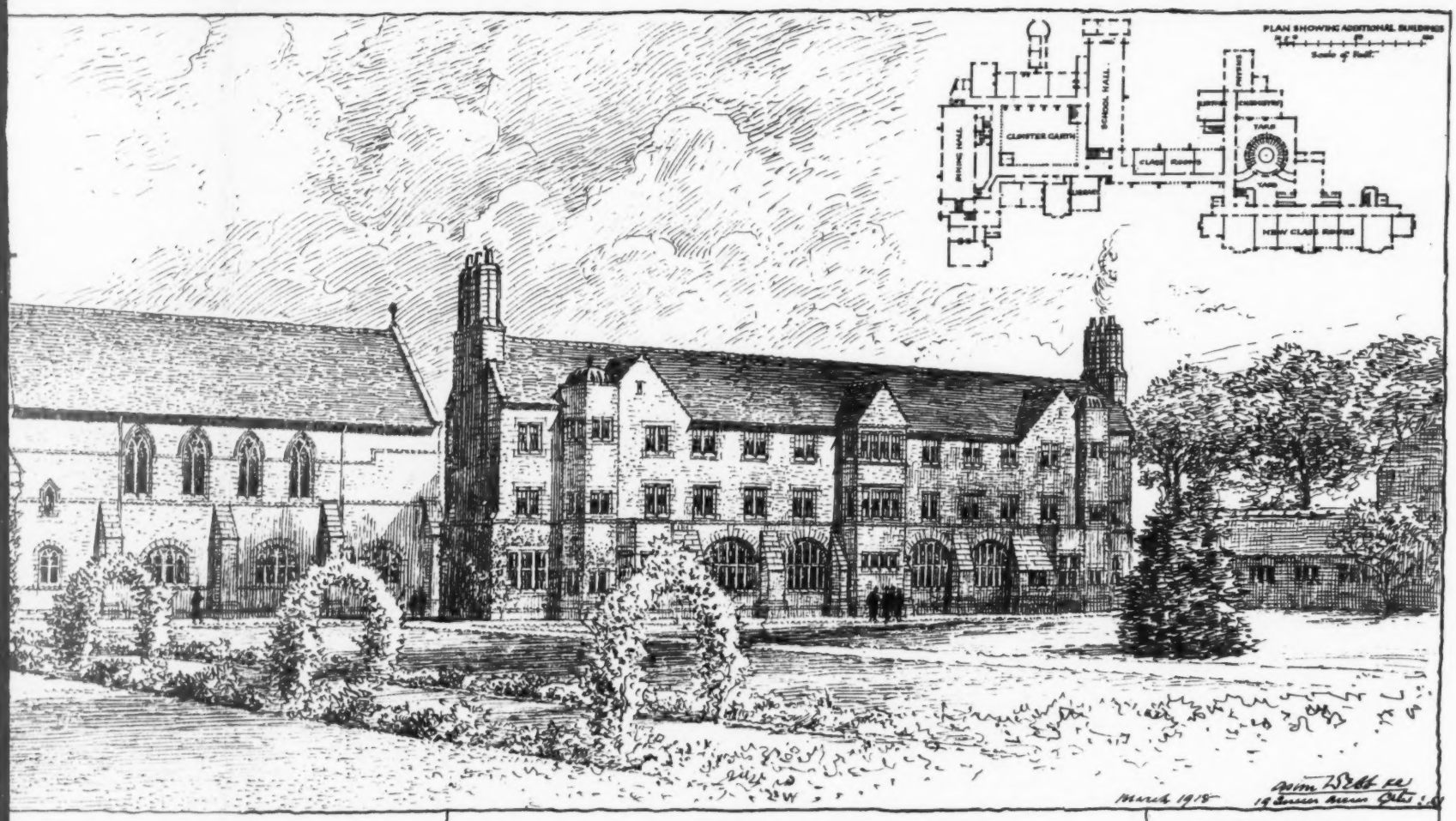


...bridge is a low-level one, designed to give a certain amount ... water without impeding the prospect. It is proposed to ... subways under the roadway at the Charing Cross Approach.

SUGGESTED WAR MEMORIAL BRIDGE OF EMPIRE CHA

MR. W. D CARÖE, M.A., F.S.A., ARCHITECT.



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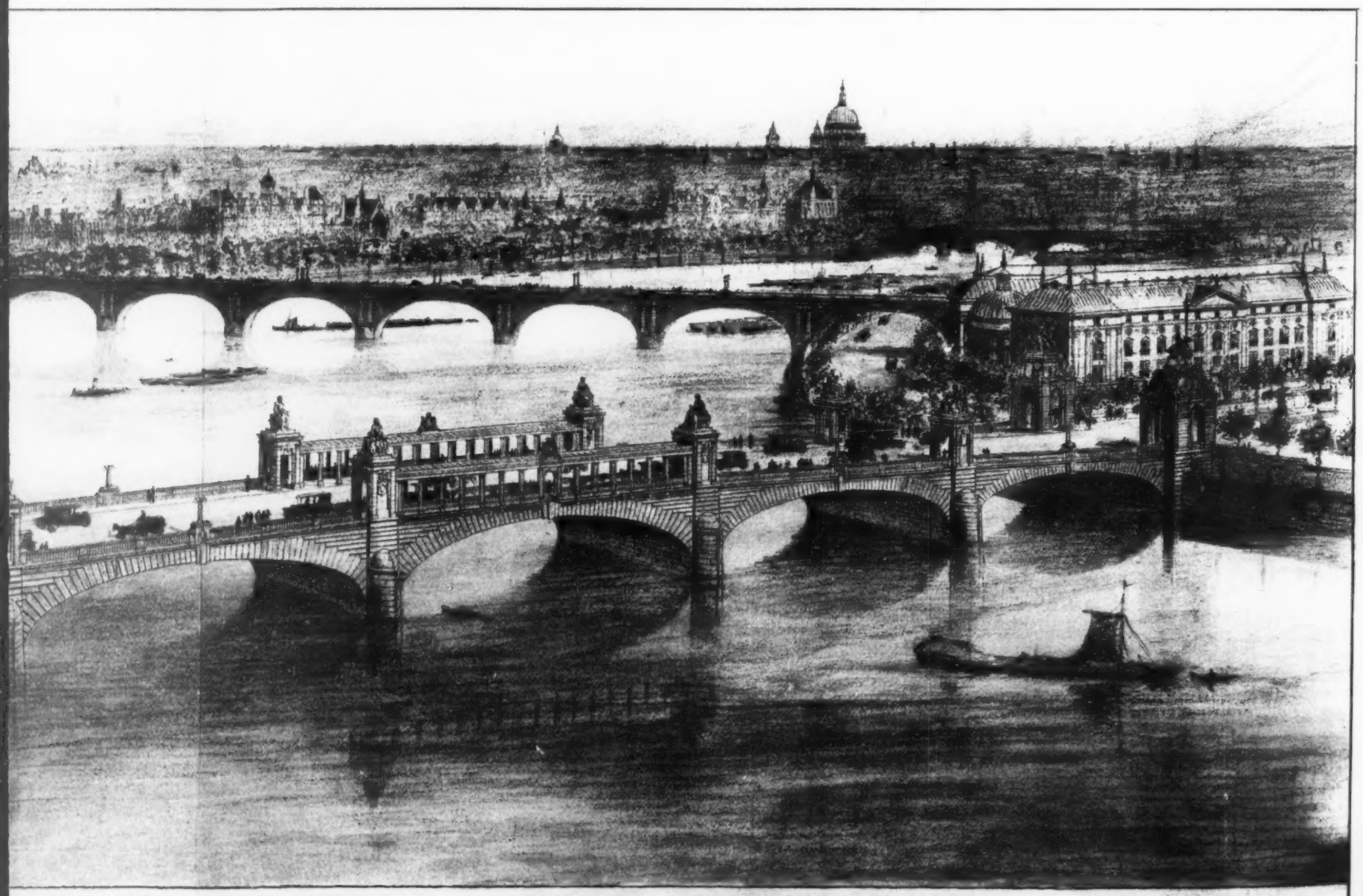

WAR MEMORIAL BRIDGE OF EMPIRE CHARING CROSS

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SLEDMERE HALL, EAST YORKS: ENTRANCE VESTIBULE AND INNER HALL AND STAIRCASE.
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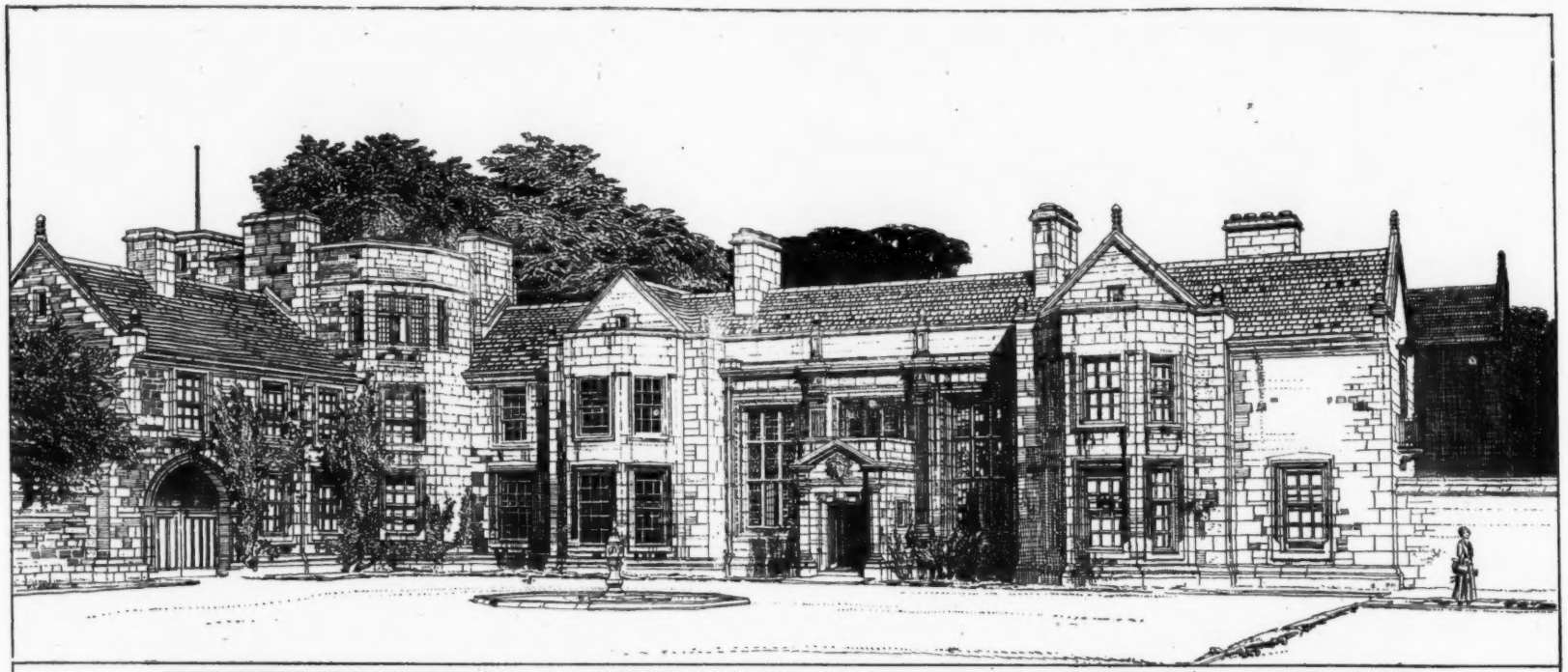
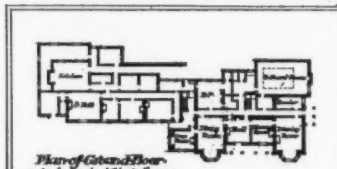
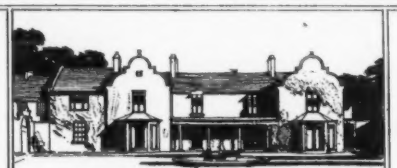
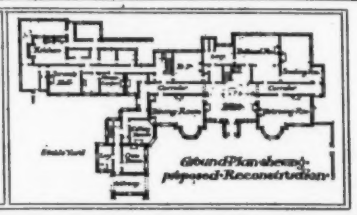




Plan of Ground Floor previous to Alterations.



Sketch of House previous to Alterations.



Ground Plan showing proposed Reconstruction.

Walter H. Brierley, F.R.I.B.A. Architect, LEEDS. YORK.

Scheme for proposed Reconstruction of JERVAULX · ABBEY · YORKS. the Tower and Wing of which are already built.